

# An Economic Review of 1939

## Introduction

**A**N economic review of the year 1939 must largely revolve around two not unrelated phenomena—recovery and war. Despite the sagging of industrial production during the early months, the year was generally one of expanded business activity. From January to August the sharp improvement of the second half of 1938 was being consolidated with assurance of better results for 1939 than had been achieved in the previous year. The change from the end of 1938 to August in most economic indicators was not very large; nevertheless business was in a moderately rising phase even before the war in Europe started.

It is perhaps strange to recall, in the light of subsequent events, that the small magnitude of the recovery of industrial production before September, the continued weakness of commodity prices, the restricted activity on the stock exchange, and the comparatively low level of capital investment were widely attributed to the threat implicit in unsettled political conditions abroad. When European war became a reality at the beginning of September, its repercussions on domestic business were anything but depressive. It changed the moderate recovery into a sharp and vigorous expansion that in its early stages had the characteristics of a speculative boom. Prices of commodities and equity shares rose rapidly, while securities which were selling on a yield basis experienced a marked decline. A forward buying movement developed immediately and was followed by a rise in purchasing of producers' goods that pushed production forward at a spectacular rate. By December, industrial production on an adjusted basis was the highest on record. All this occurred without a significant rise in exports—the area in which the impact of war-resultant demands would be focused—until the sharp, nonseasonal increase in December. Although the outlook was being viewed less optimistically by the middle of October and although the seeds of a decline had already been sown, business activity was maintained at an expanded rate through the end of the year. This marked business rise of the final third of 1939 contributed materially to the substantially better results which the year as a whole presents over 1938.

### Expansion of the National Income.

An over-all measure of the improvement in 1939 is afforded by the national income. The net value of goods and services produced during the year is estimated at 68.5 billion dollars, a gain of 4.5 billion or 7 percent over 1938 national income of 64 billion dollars. As averages for prices and living costs were little different for the 2 years, this change indicates quite accurately the gain in real income. The year brought a renewal of the upward trend in the national income which began

in 1933 and was interrupted only in 1938, as can be seen in figure 2. In contrast with 1938, when business enterprises drew heavily on accumulated resources to meet their current income payments, final data for 1939 are expected to reveal that business savings and losses (defined as the aggregate of undistributed earnings and of deficits after the payment of dividends) were in approximate balance. This elimination of business drafts, which amounted to approximately a billion dollars in 1938, was accompanied by a rise in the volume of income payments from 66.3 billion dollars in 1938 to 69.7 billion in 1939 (see fig. 2).

The dollar total of income produced in 1939 compares with the 1929 figure of 82.7 billion and the 1937 aggregate of 71.9 billion. The question of what this means in terms of real income—that is, actual goods and services—is a difficult one to answer because of the shifts in the types of income produced and the radically altered price structure. Evidence of a generally related nature indicates on a rough approximation that real income, or the dollar total adjusted for price changes, was about the same in all 8 years. The 1939 national income of 68.5 billion dollars was approximately 14 billion less than the record total of 1929. This 17-percent difference, however, was accompanied by differences of 19 percent in wholesale prices and 15 percent in the cost of living. Neither of these price series is adequate for correcting the dollar figures for price changes, but they indicate that the quantity of goods and services produced in 1939 was very nearly the same as that of 1929, despite the large variance in the dollar figures. Likewise, the difference between 1939 and 1937 income of 5 percent must be associated with the wholesale price decline of 11 percent and the reduction in the cost of living of 4 percent. What cannot be lost sight of in comparing income at both ends of the decade, however, is the increase of population, estimated to be about 8 percent, which means that real income per capita was significantly smaller in 1939 than in 1929.

As a result of the higher rate of economic activity, particularly in the final quarter of 1939, the business earnings for the year were far ahead of the 1938 results. Dividend disbursements increased markedly in the final quarter of 1939, and the total for the year was \$4,250,000,000, \$550,000,000 higher than in the preceding year, though they were considerably less than in 1937. Interest payments in 1939 were not much different in total from those in the preceding year.

Aggregate salaries and wages showed a marked rise in 1939, and labor's share in the total flow of income payments increased. The relatively sharper rise in labor income was in large part the result of the marked increase in activity in manufacturing, since labor's share of income in that industry is considerably above its portion in all industries combined. The rise in

labor's share of income flowing to individuals occurred notwithstanding a 275 million dollar decline in work-relief wages. Pay rolls in manufacturing industries alone are estimated to have increased by approximately 1.5 billion dollars, or one-eighth, over the 1938 total.

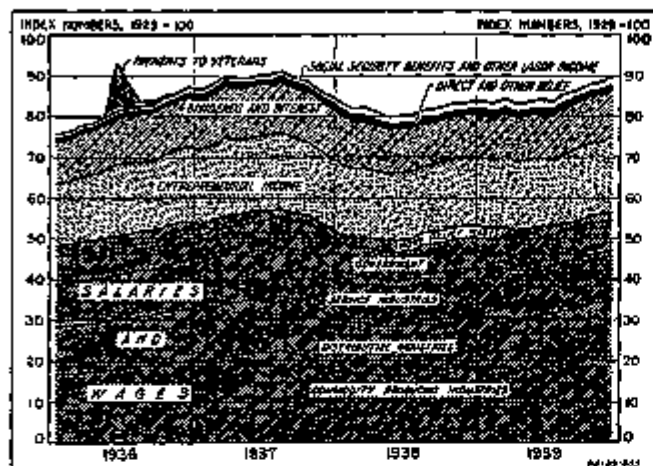


Figure 1.—Indexes of Income Payments by Type of Payment, 1934-39 (U. S. Department of Commerce).

All the major groups distinguished in figure 3 contributed, though in varying degrees, to the material improvement in income during the past year. Particularly marked was the increase in the contribution of the commodity-producing industries—those which experience wide cyclical fluctuations. Despite the wide gains over 1938, this group remained farther below the recovery peak of 1937 than the other producing groups. Manufacturing industry experienced the largest increase. Contract construction also improved, and the mining industry showed a gain despite the bituminous coal shut-down of the spring. Agricultural income experienced only a slight advance over 1938, and this was traceable to a marked increase in government benefits. Income from marketings of crops and livestock was 1.5 percent greater than in the preceding year.

The distributive industries also contributed notably to the 1939 rise in national income, with steam railroads making the best showing on a percentage basis. Moreover, the product of the distributive industries was the same as the dollar total in 1937. The service industries as a group have experienced only minor changes over the past 2 years, and for 1939 showed but little improvement over a year ago. Government's contribution to the national income was practically the same in 1939 as in 1938; the regular pay rolls of the Federal, State, and local Governments continued to expand as in recent years, but this increase was largely offset by a considerable reduction in work-relief wages (not shown in the chart).

Government in 1939 was the only major sector of the economy where the contribution to the national income was larger than the 1929 dollar volume. The com-

modity-producing industries as a whole had a dollar contribution smaller relative to 1929 than that of other groups.

#### Rise in Profits.

The improvement in business profits was shared by all major groups, notably by railroads, industrial concerns, and public utilities. The rise in profits was very substantial in the last quarter, but, even in the first 9 months, earnings were higher than during the corresponding period of 1938. The trend of profits of industrial corporations is indicated by the data in figure 26. Although the earnings of this particular group of corporations averaged less in the first 9 months

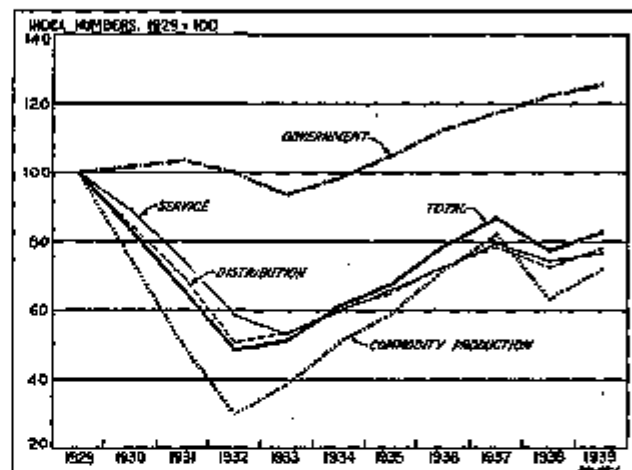


Figure 3.—Indexes of National Income by Major Industrial Sources, 1929-39 (U. S. Department of Commerce).

of 1939 than the last-quarter peak of the preceding year, the average for the first 9 months was 148.5 million dollars per quarter in 1939—more than double the comparable average of 70.5 million in 1938.

The indicated rate of earnings on net worth for the industrial corporations rose markedly in the final quarter of 1939; the profits for this period were much better than those for the year as a whole. Data for 370 manufacturing corporations, tabulated by the National City Bank of New York (including those whose fiscal year closed prior to December 31) reveal that earnings in 1939 for this group represented 7.5 percent of net worth at the beginning of the year, or about double the return of 3.6 percent calculated for the same group for 1938. For the year, the rate of earnings was less than in 1937 because of the comparatively high returns under conditions of sustained activity during the first 8 months of the earlier year. While additional reports are necessary to measure the actual changes, sufficient information is available to indicate that cost-price relationships are such that rising volumes have been accompanied by sharply advancing profits.

#### The Cyclical Background.

Of more interest and importance than the gain in income for the year as a whole is the cyclical pattern

of business during the year, the course that was charted as the year developed, and the economic situation and prospects as they appeared at the year end. A brief discussion of the cyclical background is necessary for an understanding of this movement.

As is well known, the recovery from the depression lows of 1932-33 ended with a speculative inventory-price rise which reached its peak about the middle of 1937. Leaving aside the problem of the underlying causes of the movement from July 1936 to April 1937, the facts are that Moody's price index rose 22 percent, while inventories were increased from January to September of 1937 by probably more than 2,500 million dollars. There ensued a precipitous decline during the latter part of 1937 in most phases of economic activity, and this continued, though at a slower pace, for the first 5 or 6 months of the following year.

The set-back in industrial production, spurred on by a liquidation of inventories, was particularly large; from peak to trough, May 1937 to May 1938, the Federal Reserve Board's unadjusted index dropped 37 percent, with two-thirds of the decline accounted for by the durable-goods component. The decline in sensitive prices was of similar magnitude, as is indicated by the fall of 35 percent in Moody's index from May 1937 to May 1938. No doubt these declines magnify the severity of the recession in economic activity generally. A more accurate picture of its impact is indicated by the reduction of approximately 12 and 10 percent in income payments and nonagricultural employment, respectively, from the peak to the trough in each of these series.

While this evidence need not minimize the sharpness of the downswing experienced over a relatively brief span, the fact remains that the movement fortunately was not transformed into a vicious deflationary spiral. By the middle of 1938 the trend was definitely reversed. This must be attributed primarily to four favorable elements in the situation:

1. Construction activity was well maintained during the production downswing and, although there was some dip in new contracts awarded in the second half of 1937, a sharp and early pick-up—especially in residential awards—came in 1938.

2. The volume of exports, even without the unusually heavy grain shipments, held at a relatively high level during the fiscal year 1938 and gave support to the domestic business structure.

3. The net contribution of the Government to the flow of purchasing power was sharply increased under a broad program designed to effect a quick revival.

4. All effort was made by the monetary authorities to establish extremely easy conditions in the money market, with the result that interest rates declined markedly.

As a consequence, a period of revival got under way somewhere around the middle of the year. Stock prices

turned up as early as May, and industrial production began to rise perceptibly by July. In the sense that production of new investment goods—even including that represented by Government outlays—formed a smaller proportion of the national income than was usual during the 1920's or even in 1936 and 1937, it was a consumption recovery. Under this condition of comparatively low volume of new investment, the lower level around which prices hovered contributed to the magnitude of the expansion. With inventories being liquidated at a much slower rate, industrial production expanded rapidly. From June to December there was a gain of 35 points in the Federal Reserve index—a recovery of more than half the loss of the previous year. The adjusted index of income payments<sup>1</sup> rose from 79.9 in May (1929=100) to 83.4 by the end of the year, and there was a corresponding increase in consumption, as indicated by the data on retail trade.

#### Business Pattern in 1939.

Developments during 1939 in various sectors of the economic structure form the subject of the following pages of this review. Here, only the broad outlines of the movement can be blocked in, especially as they are reflected in fluctuations in income payments.

By the beginning of the year, the factors responsible for the recovery in 1938 had spent their expansive powers. During the first half of 1939 the economic machine was operating on a relatively even keel, allowing for the usual seasonal movements. Of course, there were changes—expansion in some spheres and contraction in others—but by and large they acted as offsetting influences. Construction activity, for example, was expanding, while industrial production showed some recession. Consumption was increasing slightly with the easing of prices; inventories were on a gentle downgrade. But with private capital investment not increasing and with the Government program operating at a steady pace, with inventories at best a neutral factor and with no significantly added stimulus from abroad, the situation essentially lacked any dynamic quality. This can be seen in the movement of income payments from January to July shown in figure 4. During that period the fluctuations in this index were very slight.

Thus, the first half of the year was not marked by a real change in trend, from slightly down to slightly up, as might be suggested by the change in industrial production. Viewing the situation from the movement of industrial activity, the first half of 1939 appears much the same as the corresponding period of 1938, although in the later year operations were at a consistently higher level. But the difference is evident from the widening

<sup>1</sup> "Income payments" differ from "income produced" by the inclusion in the latter of the net savings of business units (after dividends and withdrawals), the employer and employee contributions to the Social Security funds, and the exclusion therefrom of direct relief, social insurance benefits, and similar disbursements for which no services are currently rendered.

of the gap between the curves of income payments for the 2 years as is shown in figure 4. The fore part of 1938 was the end of a deflationary movement, while no deflating tendency was revealed during the similar period of 1939.

In August, for the first time in 1939, the adjusted index of income payments rose significantly above the December 1938 figure. Much has been made of the fact that economic activity was expanding prior to the outbreak of war, but it may be doubted whether this upward trend had the staying power to carry total activity to an appreciably higher level. There was

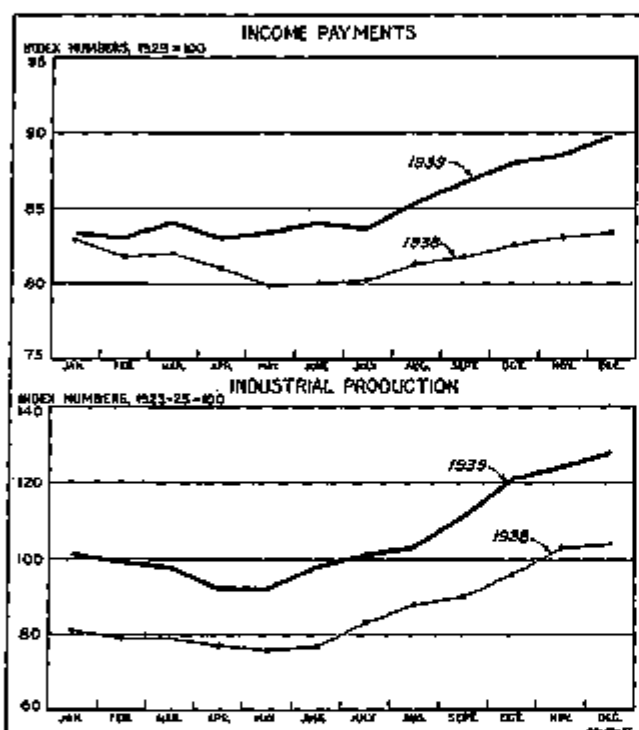


Figure 4.—Indexes of Income Payments and Industrial Production (Adjusted for Seasonal Variations), 1938 and 1939 (Income Payments, U. S. Department of Commerce; Industrial Production, Board of Governors of the Federal Reserve System).

not much evidence of a sizable increase in any of the basic demand factors which determine the volume of total production and employment. However that may be, neither the character nor the magnitude of the expansion which followed the outbreak of war had much to do with the prior trend of industrial activity.

From the very beginning of hostilities there was an immediate and spectacular change in the situation. The pound, the franc, and related currencies depreciated sharply in foreign-exchange markets as a large volume of foreign funds sought refuge in the United States and as official support was withdrawn from sterling. Early in September, commodity prices began a steep rise as a forward buying wave developed. Even consumers were affected by the prevailing sentiment to the extent of purchasing unusual supplies of staple foodstuffs. Orders piled up for a broad range of semi-

manufactured and finished goods, and manufacturing operations were stepped up to meet the new demand. Naturally the producers of more standardized materials felt the impact of the buying wave first; but, after several weeks, makers of all types of highly processed goods were receiving an enlarged flow of new business. As a consequence of the large backlogs so quickly accumulated, industrial production was stepped up at an unusual rate during September and October. By the end of the latter month many industries—for example, steel, machine tools, shipbuilding, aircraft, rayon, and paper—were operating at a rate which taxed existing capacity.

The suddenness of the move is a clear indication of the extent to which it rested upon a change in expectations. Especially in its initial phases the basis of the rise was forward buying for inventory purposes in anticipation of a rise in prices and a shortage of supplies that was expected to result from the war. As the production rise gained momentum, there was a marked increase in the rate at which business was making equipment commitments, although there was only a small increase in the volume of new factory contracts awarded. But no material stimulus from abroad had as yet developed. Exports from September to November did not advance more than seasonally, and on balance little new foreign buying occurred except in a few lines, such as aircraft, machine tools, and trucks.

Within a relatively short time a calmer attitude came to prevail as the real nature of the underlying situation was apprehended. Sensitive prices reached their peak by the middle of September and thereafter began to ease off from their "highs." The buying spurts in non-durable goods and a few semifinished durables reached a top during September, and by the middle of October new orders for these commodities were around their August levels. For many durable goods, particularly industrial equipment, new business was higher in October than in September, and in some lines was holding at this improved level in November.

Production was increased somewhat further in November, but by the final month of the year there was a slight (much less than the usual seasonal) contraction. Toward the end of the year the high rate of industrial operations was maintained at the expense of the enlarged backlogs of unfilled orders. Generally speaking, unfilled orders were being reduced in non-durable-goods industries by the end of October and in durable-goods industries by the end of November. Despite the rise in capital-goods commitments and in the actual expenditures which occurred, inventories were being accumulated at a rapid rate throughout the fourth quarter of the year. Although there was a change from the highly optimistic sentiment of September during the final months of the year, the feeling still prevailed that the war did make a difference. Prices of both commodities and equities remained above

August levels, and there was no disposition, as the year ended, to shorten inventory positions. Considering the high rate of industrial operations and the large increase in earnings which was assured for the fourth quarter, however, stock prices were weak from the middle of October to the end of the year, reflecting the doubts which were being entertained about business prospects. Furthermore, there were no signs of increased demands in the market for new capital. The two most interesting developments during December were a renewal of the rise in certain agricultural prices and, for the first month since the war started, a significant increase in exports.

By way of summary it may be noted that the expansion in economic activity which came during the last 4 months of 1939 resulted in a spectacular rise in income payments, the magnitude of which can be seen in figure 4. On an adjusted basis the increase in this index was from 85.4 in August to 89.8 in December. What a rise of this magnitude means is that by December income payments were being made at an annual rate of 73 billion dollars, compared with the midsummer flow of slightly over 68 billion. As a consequence consumption increased during this period, and, in fact, at about the same rate as income payments, although both consumption and income payments rose much less than production.

The record for the year was thus one of progress, greatly accelerated during the final 4 months. At the end of the year, however, the economic situation was definitely not one in which the high December rate of activity would be maintained. The expanded volume of production had been based in large part upon investment in inventory, and by the end of December it was evident that that movement would not continue much longer. Hence, the prospects for early 1940 were for a decline in business volumes as the rate of inventory accumulation fell off. The reduced flow of new orders and the cutting down of backlogs pointed in this direction.

At the time, there did not appear to be any new demand factors in immediate prospect of sufficient magnitude to offset a cessation of inventory investment and thus to hold productive activity at existing levels. Business investments, apart from inventories, had undoubtedly increased, but the extreme quiet in the new-issues market did not indicate expansion in this sphere for the months ahead. The export returns for December showed a large gain, and prospects as 1940 opened were for demands from abroad to be much larger than in the opening months of 1939. But the probable increase in this sphere during the early months of 1940 could hardly be large enough to fully cancel the inventory factor.

## Production

### Industrial Production

The pattern of industrial production as shown by the Federal Reserve index of industrial production was superficially much the same in 1939 as in 1938. In the first half of each year there was a small initial decline followed by a leveling off and equivalent recovery, which left the midyear index at approximately the opening level. In the latter half of each year there was a sharp advance that carried the index to a December figure approximately one-third higher than the average for the first half. The only noticeable difference to be seen in a chart of this index (see fig. 4) is that the 1939 monthly values were more than one-fifth above the corresponding monthly values of 1938.

Analysis reveals, however, that this similarity is indeed superficial, and that tremendous differences are concealed within the similarity of the over-all movements. In 1938 the initial decline was the tail end of the sharp recession that occurred in the last 4 months of 1937; it brought production to a point low enough to make possible a liquidation of the inventories that had been accumulated up to the third quarter of 1937. In 1939, on the other hand, the movement during the first half constituted merely a plateau in the recovery; production and consumption remained closely in balance and there was comparatively small change in the total volume of inventories.

The recovery in the second half of 1938 was a rebound from the depressed levels of the first half; incomes and consumption had been rather well maintained, and the flow of goods through our markets provided a firm base upon which to build a higher level of production. The recovery in the last half of 1939, on the other hand, represented a forging ahead of production to levels that would allow the building up of larger inventories and the provision of some additional capacity through new equipment; it was stimulated by recollections of the large demands that had been made during the 1914-18 war and by the speculative urge to take advantage of, or protect against, possible price increases or delivery delays.

In short, the pre-war recovery from the 1938 lows was based upon increased consumers' outlays and larger orders for Government account, particularly public construction; while the recovery after August 1939 was based upon producers' efforts to anticipate needs that would develop under conditions of large-scale war. In 1938 the general level had been lifted by increased activity in lines that ultimately enhance the Nation's consumption, and in the sharp spurt of 1939, it was pulled up by activity designed to increase the volume of inventories and the ultimate level of production.

The motivation, the sources of the greater flow of purchasing power, and the types of situation at the opening and the close of these years were strikingly different in spite of the similarity in the broad movements of the index.

Table 1.—Indicators of Change in Selected Manufacturing and Mining Industries<sup>1</sup>

Item	Percent change		Percent change	
	1939 from 1938	December 1939 from December 1938	1939 from 1929	December 1939 from December 1929
<b>Foods:</b>				
Animal fats.....	+10	+24	-9	+45
Butter.....	-2	-4	+10	+28
Meats.....	+3	+15	-3	+2
Sugar molasses.....	-4	+13	-20	-10
Vegetable oils.....	+1	+9	+2	+5
Wheat flour.....	+11	+6	-1	-4
<b>Textiles and apparel:</b>				
Boots and shoes.....	+7	-5	+16	+30
Cotton consumption.....	+25	+15	+5	+23
Hosiery.....	+11	-4	+17	+32
Rayon yarn deliveries.....	+33	+30	+173	+382
Silk deliveries.....	-7	-10	-28	-58
Wool consumption.....	+39	-23	+9	+3
<b>Paper and pulp:</b>				
Book paper, uncoated.....	+18	+27	-33	-32
Newsprint paper.....	+15	+3	-23	-32
Paper, total.....	+19	+23	+21	+21
Paper, wrapping.....	+14	+20	-	-
Paperboard.....	+28	+30	-	-
Paperboard shipping boxes.....	+17	+14	-	-
Wood pulp.....	+10	+25	+42	+42
<b>Fuels:</b>				
Anthracite coal.....	+10	+2	-31	-42
Bituminous coal.....	+14	+17	-27	-11
Coke.....	+34	+41	-15	+9
Electric power.....	+12	+11	+34	+56
Fuel oils.....	+5	+7	+10	+17
Gas, manufactured.....	+3	+10	+2	-
Gas, natural.....	+10	+8	+33	+53
Gasoline, refined.....	+7	+9	+37	+53
<b>Automotive:</b>				
Glass, plate.....	+64	+45	-0	+75
Passenger automobiles.....	+43	+15	-88	+33
Rubber tires and tubes.....	+38	-2	-23	-23
Trucks.....	+46	+26	-3	+103
<b>Building materials:</b>				
Brick, common.....	+80	+18	-28	-23
Cement.....	+15	+15	-	-
Glass, window.....	+63	+19	-	-
Lumber.....	+14	+17	-32	-
Paint, varnish, and lacquer.....	+14	+26	-13	0
Roofing, prepared.....	-1	-4	-14	+79
<b>Metals:</b>				
Lead, refined.....	+21	+27	-36	-
Pig iron.....	+69	+70	-24	+19
Steel ingots.....	+65	+65	-16	+20
Zinc, slab.....	+18	+28	-15	+15
<b>Machinery and equipment:</b>				
Air-conditioning equipment.....	+42	+40	-18	+17
Electrical goods.....	+38	+69	-68	+20
Electric overhead cranes.....	+20	+30	-68	+20
Electric refrigerators.....	+51	+72	+130	+20
Electric washing machines.....	+25	+18	+25	+25
Floor vacuum cleaners.....	+11	+24	-10	-19
Foundry equipment.....	+48	+82	-25	-15
Freight cars on order.....	+134	+829	-59	+102
Oil burners.....	+55	+51	-81	-73
Woodworking machinery.....	+81	+11	-81	-73
Steel barrels.....	+43	+77	-	-
<b>Miscellaneous:</b>				
Cigarettes.....	+45	+3	+46	+70
Furniture.....	+15	+12	+45	+45
Glass containers.....	+11	+10	+45	+45
Lamps, incandescent.....	+21	-	+33	+33
Tanning.....	+28	+5	0	+9

<sup>1</sup> For sources of basic statistics, see the 1938 Supplement and current issues of the Survey of Current Business, except for incandescent lamps, which are from Electrical Merchandising, issue of January 1940. Data represent production unless otherwise stated and except as follows: Cigarettes are tax-paid withdrawals from bonded warehouses; electrical refrigerators, paint, varnish, and lacquer, passenger automobiles, floor vacuum cleaners, electric washing machines, and incandescent lamps represent manufacturers' sales; manufactured gas and natural gas are sales to consumers; glass containers, hosiery, common brick, foundry equipment, electric overhead cranes, paperboard shipping boxes, prepared roofing, oil burners, and woodworking machinery represent factory shipments; air-conditioning equipment and electrical goods are new orders placed with manufacturers; furniture data are derived from an index of plant operations.

<sup>2</sup> Fourth-quarter comparisons.

Some estimate of the part played by the various types of commodities can be made from the data in table 2. This table indicates the extent of the increases from 1938 to 1939, distinguishing between changes in

the annual averages and changes from December to December. Since recovery took place in two stages, roughly in the latter half of each year, the commodities making the greater part of this recovery in 1938 show relatively large changes from the 1938 average to the 1939 average, while those making the greater part of their recovery in 1939 show relatively large changes from December 1938 to December 1939. The latter are, of course, the group whose recovery was based primarily upon factors connected with the war-stimulated advance.

It may be noted that some of the products listed in this table, such as steel and cement, show no important differences as between the average and the December comparisons. These products are, in the main, materials undifferentiated as to consumer or producer uses. They fall into an intermediate position because they are subject to all the influences affecting production in these years.

Table 1 also provides comparisons between 1939 production and the prosperity levels of 1929, in cases where data are available for both these years. Data for 1928 rather than 1929 are used for the December comparisons, because of the large decline that took place in the latter part of 1929. The most favorable comparisons with 1929 are made by consumers' goods, especially products favored by special long-term trends, such as cigarettes, rayon, gasoline, and electric refrigerators. Most consumers' durable goods, on the other hand, failed to reach the peak levels of the 1920's, and most producers' goods were still lagging far behind, although this disparity was in many cases greatly reduced by the year end. Some commodities that lagged—coal and silk, for example—were affected by increasing competition from other commodities; and special influences affect a few comparisons, such as the changing seasonal for automobiles. The broadest distinction, however, runs along consumption and capital goods lines, and somewhat less definitely along non-durable and durable goods lines.

The tendency of durable goods to show a less substantial recovery may be observed in the Federal Reserve indexes of manufacturing production, which are presented in figure 5. From the beginning of the depression to the middle of 1939, durable-goods production was in a definitely lower position. This may be observed most readily in the annual data. The 1939 durable average of 95 (1923-25=100) was 22 percent below its 1929 average of 122 and 11 percent below its 1937 average of 107. The nondurable average of 112 for 1939, on the other hand, was only 4 percent below its 1929 average of 117 and was approximately 2 percent above its 1937 average of 110. This failure of durable goods to reattain its pre-1930 level has been a fundamental feature of the great depression.

Under the stimulus of the September buying wave, however, the durable-goods index moved upward with

exceptional rapidity and before the end of the year exceeded the more stable non-durable-goods index. This had occurred only once before since the beginning of the depression. On that earlier occasion, the higher relative level for durable goods was accomplished, in part at least, because nondurable production had already begun the downturn from its early 1937 highs. On the present occasion the movement was only a

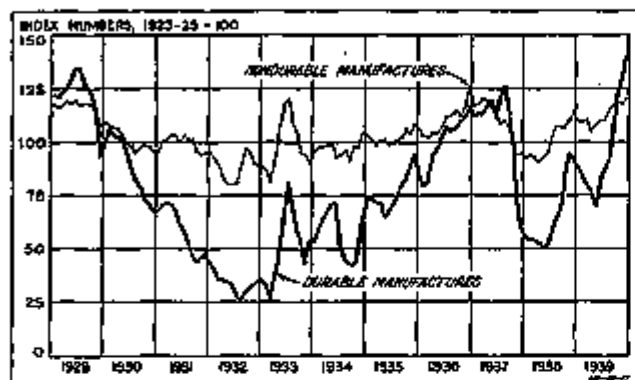


Figure 5.—Indexes of Manufacturing Production, 1929-39 (Board of Governors of the Federal Reserve System).

NOTE.—Durable manufactures include iron and steel, automobiles, lumber, ship-building, locomotives, nonferrous metals (including copper smelting through 1931 only; comparable data are not available subsequent to that date), cement, polished plate glass, and coke; nondurable manufactures include textiles, leather and products, foods, tobacco products, paper and printing, petroleum refining, and automobile tires and tubes. Indexes are based upon physical volume and are adjusted for seasonal variations.

month old, and both indexes were still moving up. By December the durable-goods index had reached a figure of 141, approximately 18 percent above the corresponding figure of 120 for the non-durable-goods index.

For the purposes of analysis, however, the nature of the underlying differences between the recoveries of 1938 and 1939 is obscured as well as clarified by the comparison of the indexes of production for durable and for nondurable goods; for these indexes do not distinguish clearly between consumers' and producers' goods and the separate forces affecting each. The durable-goods index cannot be considered primarily an index of producers' goods; it is dominated by steel, automobiles, cement, and related commodities, which are destined directly or through construction processes to consumer as well as producer uses. Similarly, the non-durable-goods index, while more directly a consumers' goods index, exhibits the effects of inventory accumulation in the post-war period; for example such accumulation occurred in textiles, the most important component of this index.

#### Producers' Goods.

Estimates of total annual outlays for new plant and equipment, as compiled for the Board of Governors of the Federal Reserve System, are presented in table 2. According to these estimates, total expenditures for new producers' goods in 1939 were up almost 14 per-

cent as compared with 1938, but were still almost 20 percent below the 1937 level. As in other recent years, the comparisons are less favorable for plant than for equipment expenditures. Plant expenditures rose about 4 percent from 1938, recovering only 15 percent of the loss from 1937 to 1938. Equipment expenditures, on the other hand, rose almost one-fifth from 1938 to 1939, recovering 40 percent of the previous loss. This difference should be typical with respect to outlays for these classes of producers' goods during a depression. The need for new equipment rises as old equipment wears out or becomes obsolete; but fixed plant facilities are relatively permanent, and additions are not required until output approaches capacity levels except insofar as they are affected by the development of new industries.

Table 2.—Estimated Expenditures for New Durable Producers' Goods  
(Millions of dollars)

Year	Total	Rail-roads	Electric power	Tele-phones	Trans-its	Other utilities	Mining and manufacturing	Agriculture	Com-mercial and miscellaneous
<b>Equipment</b>									
1929.....	6,505	337	367	287	63	113	2,135	613	1,420
1930.....	4,573	344	425	303	39	112	1,304	507	1,338
1931.....	2,941	76	280	254	63	08	920	285	1,014
1932.....	1,967	36	136	173	32	41	543	117	527
1933.....	1,404	16	61	129	25	22	419	730	602
1934.....	2,207	99	89	141	48	25	836	262	790
1935.....	3,091	83	93	156	77	29	1,255	421	955
1936.....	4,183	167	143	199	64	43	1,075	542	1,300
1937.....	5,276	237	228	248	62	45	2,096	697	1,690
1938.....	3,616	121	240	230	42	36	1,290	682	1,129
1939.....	4,294	210	213	243	63	45	1,650	520	1,550
<b>Plant</b>									
1929.....	4,467	603	367	328	62	256	1,441	379	1,184
1930.....	3,793	621	409	310	83	190	1,037	222	997
1931.....	2,132	294	269	164	69	174	515	148	683
1932.....	1,163	126	121	80	29	90	367	74	389
1933.....	867	83	22	42	31	35	372	104	183
1934.....	1,129	122	37	44	30	47	324	115	194
1935.....	1,253	83	73	48	40	67	603	180	228
1936.....	1,680	136	108	62	45	62	728	187	299
1937.....	2,264	188	172	100	30	117	1,035	223	403
1938.....	1,770	117	152	88	41	72	753	182	339
1939.....	1,851	152	160	90	54	60	775	175	265

Source: Board of Governors of the Federal Reserve System.

The movements of these expenditures within the year are even more important for an understanding of the current situation than are the broad movements of the subgroups as shown by over-all annual estimates. New business booked by many machinery manufacturers in the fall of 1939 is reported to have exceeded all previous records. Buying for armament programs undoubtedly was a leading factor, though accelerated placement of domestic orders occurred in many cases in anticipation of price increases, which, however, did not materialize. At the end of the year, the backlog of unfilled orders was reported as still at a high level.

The index of machine-tool orders maintained a fairly steady upward move from the 1938 lows through the middle of 1939. In the summer months, from May through August, it stood at an average level of 217 (1926 shipments=100), as compared with an average

of 210 for the first 6 months of 1937 and 88 for the first 6 months of 1938. This index was not published after August, but it was announced that the previous high record of 283 in April 1937 was surpassed in the later months of 1939. This tremendous burst in activity was the very center of the war boom. What requires explanation is the early high levels; and in that connection, armament programs again appear, especially in foreign orders and aircraft, although the earlier shift to the new models in the automobile industry also made some contribution.

Most other monthly data on machinery and equipment show a more definite distinction between trends in the early and in the latter part of the year. The flow of new orders—as indicated by data for such items as foundry equipment, iron and steel castings, steel office furniture, air-conditioning equipment, pumps, and transmission and distribution equipment—gradually moved upward from the 1938 lows through August of 1939, and then jumped abruptly in September to an average level for the last 4 months more than 50 percent above that prevailing during the first 8 months. Railroad-equipment buying remained depressed through August; unfilled orders for freight cars averaged less than 8,000 in this period, as compared with an average of 6,000 in 1938 and 31,000 in 1937. In September and October, however, unfilled orders increased sharply, the figure for the latter month being 29,000, compared with the 1937 high of 46,000. Agricultural-equipment sales for the fiscal year ended October 31, 1939, were reported by Barron's to have been more than 10 percent below the previous fiscal year; sales in the last 2 months of 1939, on the other hand, were reported to be more than 60 percent higher than the last 2 months of 1938. In general, it appears that so long as incomes remained low and capacities ample to meet current needs, there was little incentive for increased equipment installation, but when increased needs were anticipated and brought prospects of rising prices, there was a rush to carry out plans for improving productive facilities.

#### Other Durable Goods.

The production of other durable goods also increased substantially in 1939, but the trend was in most instances not so sharply affected by the outbreak of war as was true of producers' goods. Consumers' incomes had recovered substantially in the last part of 1938; construction for housing and Government account had moved to higher levels in this earlier period; and rearmament programs were well under way in the early part of 1939. Trends in the various industries most directly affected by these factors therefore exhibit relatively greater continuity throughout the year than those brought only to recovery levels during the latter part of the year.

The aircraft and shipbuilding industries have been dominated by the international situation for several

years. The recession of 1938 had little effect on either of these industries. The aircraft manufacturing industry has expanded to record levels by reason of large Government and foreign orders for military planes. As a result of these combined large demands, the industry shows an accelerating increase in employment throughout the year, with December almost 2½ times as high as January, when the number employed was about equal to the record 1937 average. The end of the year saw the industry working at capacity on an unprecedented backlog of unfilled orders. The shipbuilding industry was bolstered by the acceleration of the building program of the Maritime Commission in September. Ships originally scheduled for 1940 were placed under contract at that time. At the year end, total tonnage under construction in American shipyards was the highest since 1920. In addition to merchant ships of nearly 1,200,000 gross tons, naval vessels of 498,000 tons were under construction on December 31, of which 239,000 tons were in private yards. The demand for merchant ships may be restricted somewhat through the application of the cash-and-carry provisions of the neutrality legislation, but the contracts already placed assure a continued high level of activity in shipbuilding yards for some time.

Building materials were also produced in increasing quantities during the year. As indicated in the section on construction, residential building and public works were primarily responsible for the comparatively high demand of the early part of the year. Stimulated by the rise in construction, production of most building materials rose in 1939. Cement production was more than 15 percent above the 1938 aggregate and was approximately 5 percent higher than in 1937. Lumber production was up almost 16 percent from 1938, with the increases well distributed throughout the year. Other building materials behaved in much the same general manner. Practically all clay, gypsum, and glass products used in construction showed substantial increases over 1938, often reaching post-depression highs.

Production of consumers' durable goods is generally geared to sales. As indicated in the section on retail trade, many factors were operating to stimulate consumers' purchases in 1939, before as well as after the outbreak of war. The movement in production was somewhat sharper because of inventory changes. Production increased markedly, but remained well below previous peak levels for most items—for example, automobiles, refrigerators, and washing machines. The Federal Reserve index of automobile production shows an average of 91 in 1939, as compared with 63 in 1938 and 121 in 1937. This larger volume was more evenly distributed through the year than was the case with most other commodities, the first half averaging 42 percent higher than the 1938 monthly average, on an adjusted basis, and the second half 47 percent higher.

The last quarter probably would have averaged much higher except for the industrial dispute that held up production of one large company in October and November. For this reason, also, field stocks of new cars at the end of 1939 were at a fairly low level in relation to sales.

#### Metals and Minerals.

Metal and mineral products go into a wide variety of uses, and the pattern of production for these products is generally intermediate between those of the various uses to which they are put. For this reason, the character of the general economic movement cannot be appraised from combined data for these products, which include production for all uses. The group as a whole is very important in the aggregate, however, and reflects the combined movements of finished-goods production.

For example, steel goes into consumers' goods such as automobiles and tin cans, into producers' machinery and equipment, and into construction projects of all kinds, public as well as private. In 1939 practically all consuming industries took more steel than in 1938. After rising to an intermediate peak of about 60 percent of capacity in November 1938, steel operations began to recede, reaching a low of 47 percent of capacity in May 1939. From May to August there was a gradual recovery that returned production to 60 percent. After the outbreak of war, a large backlog of unfilled orders was accumulated, and production rapidly moved up to a record level. In December, the Federal Reserve steel index (adjusted) stood at 178 (1923-25=100), as compared with 151 in July 1929 and 144 in August 1937. The initial spurt in buying quickly spent itself, however, and new orders subsequently dropped, so that operations during December cut into backlogs. Moreover, since the rate of production was higher than that of the movement into consumption, steel inventories were accumulating in the steel-consuming industries.

Nonferrous metals, on the other hand, show much more definitely the type of upsurge in the last 4 months that was characteristic in the producers' goods industries. Output of refined copper was 28 percent higher than in 1938. In the final quarter of the year, brass and bronze mills were operating practically at capacity, and deliveries of ingots and billets were almost twice those prevailing in the first 6 months. Lead and zinc also show large increases in production, rising 22 percent and 18 percent, respectively, above 1938 figures. Refiners' stocks of both these metals were halved in the last 4 months, although production of zinc in the last quarter rose 30 percent above the first-half average. Lead production rose about 25 percent on the same comparison. The consuming industries, in other words, were taking nonferrous metals in the late months of the year at a rate well above the high rate prevailing in these industries in the pre-war period.

A diversity of influences appears also in the produc-

tion of fuels. Production of bituminous coal in 1939 was 14 percent larger than in 1938, but was still 12 percent below 1937 and 26 percent smaller than in 1929. Output was reduced during the mine tie-up during April and May. In June, after the industrial dispute had been terminated, output rebounded to the high levels of the early part of the year, and after the outbreak of war in Europe, production went on to a level in the final quarter that was exceeded in recent years only at the 1936-37 peak. Coke production rose even more sharply at the year end, reflecting the higher rate of steel operations. The high bituminous coal output in the last 4 months was sufficient not only to meet the enlarged demand but also to bring stocks, which had been reduced almost 40 percent during the industrial dispute, above the figures of a year earlier.

Output of refined petroleum products maintained a steady upward trend through 1939, reaching an all-time high for the year and averaging 8 percent above 1938. This resulted in almost continuous additions to stocks of gasoline. Crude-petroleum output for the year was up 4 percent from 1938, but was under the 1937 total; production in August was about one-fourth below the average for the year, as oil wells in major producing areas were shut down by official order to prevent heavy supplies from driving prices down. In the last 4 months, however, production moved up to new high levels. In December, output was approximately 3 percent above the previous high of August 1937. At the end of November, stocks of refinable crude oil, at 234 million barrels, were about 40 million barrels lower than a year before, and of this reduction 32 million barrels were accounted for by the August shut-down. Other petroleum products also show improved inventory positions as compared with gasoline. Higher demand for such products and improved refining technique which produces more gasoline per barrel of crude oil are responsible for this trend.

#### Nondurable Goods.

Production in nondurable lines normally is based upon current factors of supply and demand, rather than upon a cycle in the accumulation and wearing away of supplies. Where production schedules are flexible, purchases by consumers are generally the determining factor; but at times production deviates significantly from the level of consumption by reason of changes in inventories. The recent large upturn in some nondurable lines must at least in part be attributed to this factor.

The Federal Reserve index of textile production rose sharply in 1939. The average of 114 for the year was about one-fourth higher than the 1938 average and was higher than that for any other calendar year since 1929. In December the adjusted index at 123 was two-thirds above the low of 74 in April 1938. Since the average for the last quarter of 1938 was about 110, more than three-quarters of the total recovery occurred

in that year. For the first 7 months of 1939, production remained near, though slightly below, that at the close of 1938, and did not break into new high ground until August.

Cotton consumption, after reaching a low in April, when the adjusted production index was 105 (1923-25=100) moved up steadily; by December the adjusted index was about the same as the previous record, in December 1936. Production of woolen goods also was near a record in the last 4 months of 1939. Rayon yarn moved into new high ground, a continuation of the long-term upward trend. The major part of the increase in output of rayon yarn occurred in the latter half of 1938, rather than in 1939; the average for the year shows an increase of 33 percent, while the average for the latter half shows an increase of only 16 percent over the corresponding 1938 levels. Silk consumption, in contrast with that of other textile fibers, was smaller in 1939 than in 1938. There was a temporary bulge in deliveries to mills in September and October, but this was more than wiped out by a major contraction in the next 2 months. Inventories of textile products were considerably higher at the end of the year.

Production of foodstuffs on the whole appears to have been somewhat higher in 1939 than in 1938, although the largest increases were confined to specialties. The inventory picture is somewhat confused. In the early part of the year, a considerable amount of inventory liquidation appears to have taken place; this was in many cases offset by later accumulation. Year-end inventories in some instances are reported higher, and in some lower, than those of the preceding year. The Federal Reserve index of slaughtering and meat packing shows production lower in the early part of the year and higher in the second half, especially in the last quarter. Dollar-value inventories of pork products are reported higher; no increases are reported for some other products, but larger tonnage may be offset by lower prices.

Paper production is perhaps a more significant indicator of general trends than many other nondurable goods, because of the variety of uses into which paper goes. In 1939, total production for all types was about 18 percent higher, with gains fairly well distributed throughout but increasing during the fourth quarter. Little advance from the November-December 1938 level was made by the newsprint production series. Inventories of newsprint ended the year substantially above 1938 after monthly increases beginning in April. Total paper production, excluding newsprint and paperboard, was up 12 percent; much of the gain was due to the 1938 increase, so that the leveling off in the early part of 1939 left the third-quarter totals about equal; but production took a new spurt in September and ended the year at a record high. The European war carried the threat of restricted pulp supplies and rising prices for some types of paper, which led to rapid inventory

accumulation by most consumers. An unusually large rise in shipments of paperboard containers after August probably indicates stocking up, not only of such containers, but also of the products ordinarily shipped in them.

### Agricultural Output and Income

Production of agricultural commodities is generally dominated by factors that do not respond readily to changes in the general economic situation. For most crops the acreage harvested in 1939 was unusually small, but yields per acre averaged higher than in any other of the last 25 years except 1937. The higher yields provided an almost complete offset to the reduction in acreage, so that production fell less than 2 percent below the 1938 total. Furthermore, large surpluses of many crops were carried over, and available supplies continued heavy.

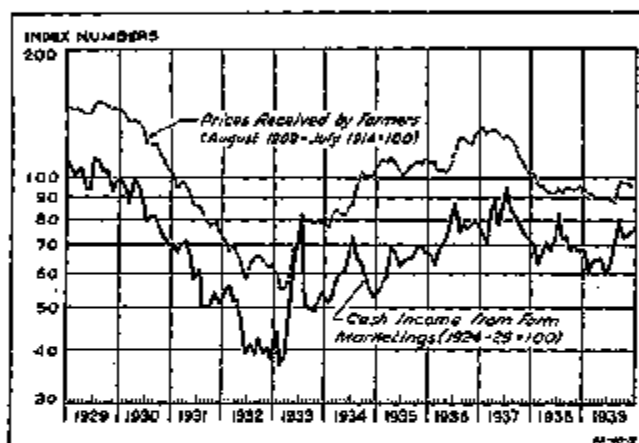


Figure 4.—Indexes of Prices Received by Farmers and Cash Income from Farm Marketings, 1929-39 (U. S. Department of Agriculture).

NOTE.—The index for cash income is adjusted for seasonal variations and does not include governmental payments.

A large part of the reduction in acreage was in the Great Plains region, where drought conditions still continue. Heavy losses of crops, as well as reduced plantings, were responsible for the large reduction in harvests in this area. In a half dozen States of this region, which normally have a fifth of the crop acreage of the country, nearly a sixth of the acreage was lost, and the yields from a large portion of the harvested area were extremely low. In other regions the primary factors in bringing about the reduction in acreage were depressed prices and large surpluses at planting time, and more general compliance with the adjustment program than in previous years.

The index of yield per acre for 27 important crops stood at 112.7 percent of the predrought (1923-32) average. This yield represents an increase of about 1 percent over 1938, and was exceeded only in 1937. Contributing to these results were the continuance of favorable weather conditions in most areas and the increasing use of more productive agricultural techniques.

Production of all wheat in 1939 is estimated at 755 million bushels. This is about 19 percent smaller than

the large 1938 crop of 932 million bushels, but is slightly larger than the 10-year average from 1928-37. Supplies are only about 75 million bushels smaller than a year earlier, however, because of an increase of about 100 million bushels in the carry-over. A reduction in exports and in the quantity of wheat fed to livestock in 1939-40 is expected to result in a carry-over on July 1, 1940 of between 275 and 300 million bushels as compared with 254 million a year earlier.

The production of corn for all purposes in 1939 is estimated at 2,619 million bushels, about 2 percent higher than in 1938 and 13 percent higher than the 1928-37 average. This increase of 2 percent was obtained despite a 4-percent reduction in acreage. Unusually heavy yields were obtained; among the most prominent factors in improving yields were the increased planting of high-yielding hybrids, the restriction of planting to more fertile land, near ideal weather conditions, and the increased use of power machinery. The 1939 yield per harvested acre of 29.5 bushels was the highest since 1920. Total supplies on hand were the largest since 1932.

Despite reduction in total acreage picked to the smallest figure in more than 40 years, the 1939 cotton crop of nearly 11.8 million bales was almost as large as the 1938 crop and was less than 15 percent below the 1928-37 average. Yields were unusually high; the average of 236 pounds per acre was exceeded only in 1937. The world supply of cotton remains only a little under the 50 million bale record high supply of each of the two preceding seasons. The world cotton carry-over on August 1 will probably be only a little smaller than the exceptionally large carry-over of 21.5 million bales last August. Of this carry-over at the end of last season, about 14 million bales were American cotton, the largest carry-over on record.

The largest tobacco crop on record was produced in 1939, amounting to 1,770 million pounds for all types combined. The yield per acre of about 911 pounds established a new high, and the season's acreage was the fifth largest in history, resulting in an increase of 29 percent from 1938 production. Pressure on prices resulted from British measures to restrict imports, as well as from the heavy supply.

The upward trend in consumption of fresh fruits and vegetables continued in 1939. The total gross tonnage of 13 major fruit crops in the 1939-40 season was only about 1 percent less than the record tonnage produced in 1937-38, and nearly 2 percent above the total for last year. Production of 17 truck crops marketed fresh in 1939 was the largest on record. The total tonnage of vegetables produced for canning declined about 10 percent from 1938, with high yields partially offsetting the much larger decline in acreage that resulted from last spring's heavy stocks of canned vegetables. At present, such stocks are well below the large carry-over of last year.

In livestock and derivative products, the feed-price product-price cycle hampered efforts to prevent surpluses. The number of animal units on farms is about equal to the average of 138 million for the predrought period of 1928-32. The total number has been estimated at 136 million for 1939-40, as compared with 127 million for 1938-39. Supplies of feed continue plentiful, however; estimates place the total, excluding hay, on October 1 at 118 million tons, as compared with 110 million tons on October 1 a year earlier. On this basis, the supply per animal amounts to 0.85 ton this year, as compared with 0.87 ton in the previous year. The comparable figure for the predrought period was 0.77 ton, indicating that feed supplies remain relatively large despite the recovery of farm-animal population to previous levels. A still larger number will probably be fed in 1939-40 than in the preceding year, and marketings can be expected to increase. As a result of recent price changes, however, the ratio of livestock prices to feed prices is now unfavorable for feeding livestock; if these changes prove permanent, 1940 should see a reversal in the recent upward trend in farm animal population.

The total spring and fall pig crops amounted to about 84 million head, or about 13 million more than in 1938. This total marks the return of production to the predrought level. Exports of pork and lard increased more than a third in 1939 as compared with 1938. While foreign sales may be a factor of strength in 1940, increased domestic consumption may be an even more important factor in moving the large supply. These products have been added to the list of surplus commodities under the Food Stamp Plan.

Marketings of poultry and eggs were about 9 percent higher in 1939 than in 1938. On November 1 there were about 4 percent more layers than on the corresponding date a year earlier. Eggs per layer were only slightly down from the previous year's high record, so that total egg production was about 3 percent higher than the previous year and 24 percent higher than the 10-year November 1 average.

Dairy products also show the effects of the continuing upward trend in consumption. Consumption of butter and of evaporated milk made new high records in 1939, much of the increase in butter consumption resulting from the distribution of this food by the Federal Surplus Commodities Corporation. Milk production also made a new record in 1939, with the total of 111 billion pounds exceeding the previous record of 1938 by about 1 billion pounds. At the end of 1939 there were more milk cows on farms, and supplies of feed were relatively large. The inventory position is much improved with respect to most dairy products, however. Cold-storage stocks of butter totaled 128 million pounds on November 1, about 34 percent less than the excessively large stocks of a year earlier, and stocks of American cheese were the smallest since 1932.

**Cash Farm Income.**

Cash farm income from marketings and Government-program payments was up 5 percent from the 1938 level. Estimates for 1939 show a total of 8.5 billion dollars, as compared with 8.1 billion in 1938. Figure 6 presents the adjusted index of income from marketings and the index of prices received by farmers. The broad movements of the two series were in a general way similar in 1939, except that the income series fluctuated more widely. Throughout the first 7 months, income drifted toward lower levels and then advanced sharply in August, just ahead of the war-stimulated general upsurge. The advance continued into September; and after a minor decline to October, the adjusted index leveled off, with the monthly average for the last quarter about one-sixth higher than in the earlier part of the year. For the year as a whole, income from marketings of farm products of 7.7 billion dollars was up only slightly from 1938. This increase was confined entirely to the crops subtotal, the livestock groups remaining unchanged. Within the livestock group, small gains in income from meat animals and wool were offset by declines in income from dairy products and poultry and eggs. In the crops group, the small gains made by fruits and vegetables were partly offset by declines in cotton and tobacco, and the total income from marketings of grain rose about 8 percent.

A new program designed to increase income from marketings was inaugurated by the Government in 1939. Under this program, blue stamps which can be used only to purchase surplus farm products are issued to needy families, to an amount equal to one-half of their expenditures for other food-store products. In addition to increasing sales of surplus farm products, this program is designed to improve the diets of needy families and to stimulate business in the normal channels of trade which it utilizes. In 1939, however, operations under this plan were limited, and its effects on farm income were comparatively unimportant.

More directly influencing farm income were price parity and conservation payments by the Government. In 1939 such payments amounted to \$807,000,000, an increase of \$325,000,000 from the total for 1938. This was equivalent to \$112 per farm and \$24 per person living on farms, and represented an addition of over 10 percent to total income from marketings.

**Consumption****Retail Distribution**

The flow of goods to consumers is determined by consumer incomes and the willingness of consumers to utilize available funds for consumption purposes. Up to the outbreak of war, the improvement in sales appeared to be dependent upon the increase in incomes. From the 1938 lows, incomes had made relatively steady upward progress through the last half of the

year and then had leveled off; similarly, there was a sharp increase in retail sales in the latter half of 1938, which was followed by a leveling off, during the first half of 1939. In the latter half of 1939, on the other hand, sales responded to the new increases in income flowing from the war-stimulated expansion in business activity. Hoarding of a few commodities by consumers was supposed to be the basis of sharp, though temporary, bulges in sales and prices of such staples. The threat of prospective price advances probably influenced some consumer provision for future needs in a number of durable and semidurable lines.

The pattern of retail sales within the year was almost identical with that of income payments. There was a sidewise movement from January to July, and then a steady rise to the end of the year which corresponded with the rise in income payments.

Table 3 presents estimates of total sales by types of retail outlet. Total retail sales are estimated at 37,950 million dollars in 1939. This total is 7 percent above the total of 35,425 million dollars for 1938, but is 5 percent below the total of 39,930 million dollars for 1937. Since retail prices were lower in 1939 than in 1937, however, a large proportion of this decline from that year, especially for nondurable goods and foods, must be attributed to lower prices.

**Table 3.—Estimated Retail Sales, by Kinds of Business**

Business group (Census classifications)	Sales in millions of dollars			Percentage increase, 1939 from 1938
	1937	1938	1939	
United States total.....	39,930	35,425	37,950	7.0
Food group.....	9,348	8,920	9,095	2.0
Beer and liquor stores.....	408	384	418	6.0
Eating and drinking places.....	2,879	2,870	2,770	2.5
Farmers' supply and general stores.....	1,093	1,784	1,820	2.0
Department, dry-goods, and general-merchandise stores.....	4,107	3,793	4,030	6.6
Mail order (excluding sales of mail-order houses).....	490	463	519	12.0
Variety stores.....	885	828	905	8.5
Appliances group.....	3,185	2,923	3,085	5.5
Automotive group.....	5,910	3,900	4,090	28.0
Filling stations.....	2,478	2,404	2,628	1.0
Furniture and household appliance stores.....	1,718	1,425	1,603	12.5
Lumber, building, and hardware group.....	2,584	2,270	2,497	10.0
Drug stores.....	1,411	1,370	1,410	2.5
Jewelry stores.....	312	279	307	10.0
Other stores.....	2,240	1,670	2,073	5.0

Source: U. S. Bureau of Foreign and Domestic Commerce.

All lines of retail trade showed increases in 1939 over 1938. The largest gains were made by the durable-goods lines, which had declined the most from 1937 to 1938; these groups made relatively poor showings, however, in terms of the comparison with 1937 levels, which they failed to reach by a substantial margin. The effects of special longer-term trends may be observed as influencing the sales of various other groups; mail-order sales, filling-station sales, variety-store sales, and beer and liquor store sales show favorable comparisons with 1937, while sales of farmer's supply and general stores were distinctly below the 1937 level. The influence of prices on the total value of sales in 1939

was also important; the smallest gains from 1938 to 1939 were made by filling stations and by all outlets handling foodstuffs, prices of which were weakest, at least until the outbreak of war in Europe.

Figure 7 shows the monthly trends of new passenger-car sales and of department-store sales, adjusted for seasonal variation. After a high first quarter, automobile sales fell back more than halfway to the 1938 average level and then stabilized until after the introduction of the new models. This stability was succeeded by a sharp upward movement in the last quarter that carried the index in December up to the

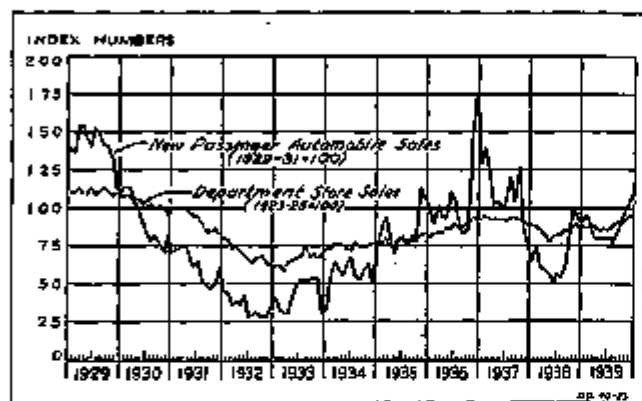


Figure 7.—Indexes of New Passenger-Automobile Sales and Department-Store Sales, Adjusted for Seasonal Variations, 1929-39 (New Passenger-Automobile Sales, U. S. Department of Commerce; Department-Store Sales, Board of Governors of the Federal Reserve System).

1937 average. The year as a whole was up more than a third from 1938, but was still 16 percent lower than in 1937; it was about 8 percent above 1935 and 14 percent below 1936. Since the highest proportion of trade-ins tends to come in the second or third years, 1939 should have obtained the benefits of the maximum trade-ins from the recent peak years 1936 and 1937. The low level of sales in 1938 may also have contributed to the higher level of sales in 1939, increasing the number of potential buyers who desired a new car but were unwilling to make commitments while incomes were at depressed levels.

A more typical pattern of retail sales is that shown by the department-store index. After the small initial decline, sales moved up to a new post-depression high at the end of the year. This upward swing was only slightly larger than the advance in the latter half of 1938, so that the margin of gain in 1939 over 1938 remained fairly stable throughout the late months of the year. Sales of such articles as furniture and appliances were undoubtedly aided through the year by the higher level of residential construction and its counterpart in new homes being established.

#### Installment Sales

Use of installment credit has been extended in recent years largely as an instrument of retail competition. Today there are virtually no limitations on the types

of merchandise available for immediate use on deferred payments. Automobile sales, however, account for about 60 percent of installment-sales volume, and other durable goods, primarily household appliances and furniture, account for a large proportion of the remainder. The extension of installment credit on "soft goods" is a recent development that was greatly expanded in 1939, but its importance cannot be adequately appraised at this time. There was also some easing of terms in 1939. Down payments were eliminated, and the period for repayment was lengthened for some durable goods other than automobiles; but this is calculated to have had little effect on sales of such goods.

According to preliminary estimates, the total volume of installment sales in 1939 was approximately 4,200 million dollars. This represented an increase of 900 million dollars, or more than a fourth from the total of 3,300 million dollars for 1938. It was still 400 million dollars, or approximately 9 percent below the total of 4,600 million for 1937. These changes in installment sales are much larger than the corresponding changes in the total volume of retail sales, since durable goods constitute the bulk of installment sales. The greater range of fluctuation of deferred-payment sales appears to be their most important characteristic; thus, in 1939 they provided expansionary influence in the movements of incomes and consumption, as contrasted with the depressing influence of consumer installment-debt liquidation in the preceding year.

A succession of annual increases in retail installment sales served to increase year-end outstanding consumer debts on such accounts from about 1,000 million dollars at the close of 1933 to perhaps 2,750 million dollars at the close of 1937. The sales decline in 1938 produced a net liquidation of perhaps somewhat more than 500 million dollars between the year-end points of measurement. The sharp rise of installment volume in the closing months of 1938 probably terminated this liquidation. A preliminary estimate would place consumers' retail installment obligations at about 2,500 million dollars at the end of 1939, somewhat below the recent high point at the close of 1937. The aggregate consumer use of credit during 1939 was much larger than these figures indicate, as retail charge accounts and loans of consumer-cash lending agencies are not included in the retail installment-credit data. A rough estimate places the net increase in total consumer debt during 1939 at something in the neighborhood of 750 million dollars, of which about half is represented by the increase of retail installment debt alone.

#### Wholesale Trade

Sales of service and limited-function wholesalers during 1939 are estimated at 20.7 billion dollars, or approximately 9 percent higher than the 1938 total of 19.0 billion. Quarterly sales show increasing gains for each

successive quarter of 1939; the first quarter was only about 5 percent higher than the first quarter of 1938; the second quarter was almost 7 percent higher than the corresponding 1938 quarter; the third quarter was 10 percent higher; and the fourth, 13 percent higher. Greater cyclical swings than those shown by actual consumption are more or less typical of wholesale sales, in part because of difference in the types of goods moving through these channels, but also because of changes in retail inventories.

Since the general wholesale price average, as measured by the Bureau of Labor Statistics index, was about 2 percent lower in 1939 than in 1938, there was a moderately larger gain in the quantity of goods sold at wholesale than is reflected in a comparison of the dollar sales for the 2 years. On a physical-volume basis, moreover, wholesale sales in 1939 were back to and perhaps somewhat above the 1937 level, since the decline of 7 percent in dollar value from 1937 to 1939 is somewhat less than the decline in the price index during the same period.

All of the various wholesale groups recorded gains in 1939 over 1938. These follow a pattern similar to that observed in the case of retail sales; they range from a 3-percent rise for sales of drugs and drug sundries, grocery and food products, and tobacco products, to a more than 20-percent rise for some durable-goods lines.

### Inventories

The unusually large swings in production relative to consumption during the past year are evidence that important changes in inventories have taken place.

Up to September there appears to have been minor liquidation of inventories. With the change in sentiment consequent upon the war, however, a quick move to readjust inventory positions upward occurred. This was in part purely speculative, but it was also designed to protect against delivery delays and to prepare for anticipated increases in business volumes.

Estimates of the changes in inventories from the end of 1935 to date are presented in figure 8. After a period of relative stability from the middle of 1938 to the middle of 1939, the dollar value of inventories is estimated to have increased more than 1 billion in the second half of 1939. In 1937 the switch to inventory liquidation after excessive accumulations in the first three quarters of that year was one of the primary factors leading to abrupt decline in production in the late months of 1937. Subsequently, much of the excess was liquidated, although the total value dropped by less than half the previous increase from the low figure at the end of 1935 to the extremely high aggregate at the end of 1937. At the middle of 1939, inventories were still fairly high, but apparently were not burdensome, and there were major differences in various lines. As sales rose with increasing incomes and cash positions were ample to maintain liquidity, the need for further liquidation had ceased. In the last half of 1939, however, the new upward movement carried the estimated total to within one-half billion dollars of the high end-of-1937 level.

Expressing these inventory totals in terms of physical volume indicates, however, that all of this deficiency from the 1937 level was due to price reductions and that the physical volume of inventories was perhaps

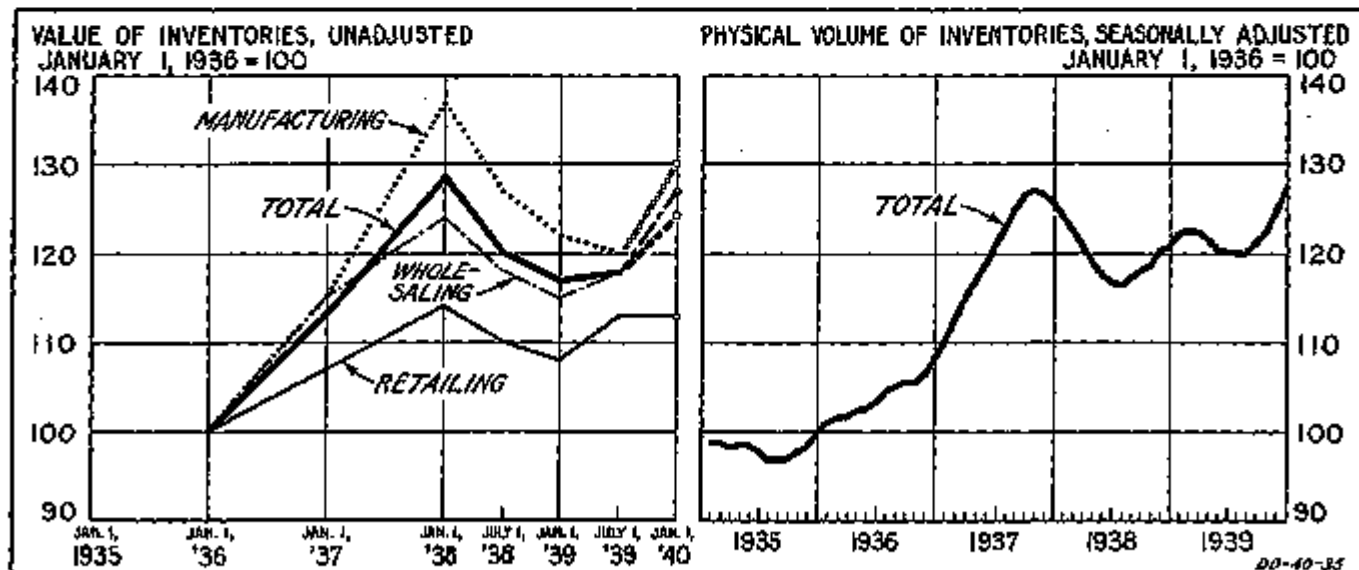


Figure 8.—Inventory Values and Trends, 1935-39 (Dun & Bradstreet and U. S. Department of Commerce).

NOTE.—Value of inventories (Dun & Bradstreet's series), for January 1, 1940, was estimated by the Department of Commerce upon the basis of changes in sample data during the last half of 1939. The monthly index of total inventories in terms of January 1, 1936, dollars is based upon the Dun & Bradstreet's series; adjustments for wholesale price trends, and interpolations for monthly figures have been made by the Department of Commerce. This index also has been adjusted for seasonal variations.

slightly higher than at the end of 1937. (See fig. 8.) The inventory index used to interpolate between end-of-year totals indicates that most of the 1939 advance occurred in the last quarter and that the rate of accumulation in that quarter was as rapid as in any quarter during the 1936-37 rise. This high rate of accumulation raises a serious question as to the ability of the economy to maintain the production rate attained by the close of 1939; for a cessation of the inventory accumulation would necessitate a reduction in the rate of production unless new demand factors came into play to offset such a deflationary force.

Inventories in wholesale and retail trade channels, as well as in manufacturing industry, increased in the second half of 1939. Preliminary estimates based on early reports place these increases at 9 percent for manufacturing, 6 percent for wholesale, and only a slight rise for retail inventories. Sales, on the other hand, increased more than these percentages in each of these fields and the inventory-sales ratios have declined for all groups. On this basis, present positions have been widely stated to be fully justified. Dependence upon inventory-sales ratios is not an adequate safeguard, however, if the volume of sales itself is unduly expanded as a result of inventory accumulation at later stages.

## Construction

The maintenance of a high level of construction expenditures during 1939 operated throughout the year as a factor of definite strength in the general business situation. The total value of construction work done during the year is estimated to have amounted to slightly less than 10 billion dollars, and to have been roughly 12 percent larger than in 1938. For the sixth consecutive year, construction activity continued to advance, with the result that the total for 1939 was more than 2½ times as large as the low value reached in 1933. Despite this increase, total expenditures on construction in 1939 were less than three-quarters of those attained in the peak years 1926 to 1929, though the physical volume of construction last year may have been as much as seven-eighths of that reached at the peak, when allowance is made for changes in construction costs during the intervening decade.

As the Bureau of Foreign and Domestic Commerce estimates presented in figure 9 and table 4 indicate, both private and public work contributed to the rise in expenditures for construction from 1938 to 1939. For the first time in 3 years, changes in these two types of work were in the same direction, and total construction increased more rapidly than in either of the two intervening years, when an increase in one of these types of work was partially offset by a decrease in the other. In private construction, the increase

occurred almost entirely in the field of new residential building, while the rise in public work is primarily the result of largely expanded construction operations

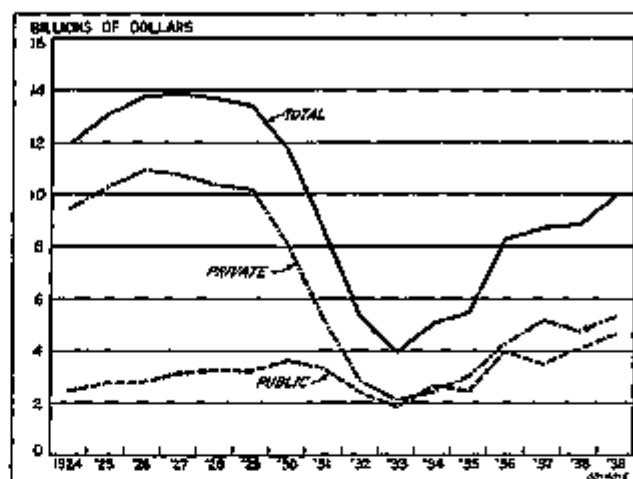


Figure 9.—Estimated Value of Total, Private, and Public Construction, 1924-39 (U. S. Department of Commerce).

NOTE.—Data for 1939 are preliminary.

under the 1938 Public Works Administration program. The volume of neither public nor private construction done during the year appears to have been greatly affected by the outbreak of the European war in September, though the industrial expansion that followed the beginning of the European war brought some increase in the amount of industrial and commercial building on which construction was started.

Table 4.—Estimated Value of Total Private and Public Construction<sup>1</sup>

(Millions of dollars)							
Item	1920-29, average	1932	1933	1934	1937	1938	1939 <sup>2</sup>
New construction:							
Private.....	9,383	1,707	1,061	2,551	3,326	2,032	3,516
Public.....	2,528	1,794	1,216	2,164	2,014	2,157	2,890
Total.....	10,702	3,491	2,207	4,705	5,340	4,089	6,316
Work-relief construction <sup>3</sup> .....			114	1,120	778	1,202	1,082
Maintenance:							
Private.....	2,195	1,125	1,016	1,742	1,854	1,837	1,800
Public.....	795	624	527	710	718	738	800
Total.....	2,990	1,752	1,543	2,452	2,572	2,575	2,600
Total construction:							
Private.....	10,558	2,832	2,107	4,293	5,180	3,769	5,316
Public.....	3,104	2,418	1,857	3,894	3,507	4,095	4,632
Total.....	13,662	5,252	3,964	8,287	8,687	7,864	9,947

<sup>1</sup> These estimates measure construction activity as represented by actual expenditures for labor, material, and other items. Figures beginning with 1915, substantially comparable with those presented above, are shown in Domestic Commerce Series No. 69, Construction Activity in the United States, 1915-37, by Lowell J. Chawner, and in Recent Developments in Construction Activity, by Samuel J. Dennis, Survey of Current Business, August 1939, both published by the Bureau of Foreign and Domestic Commerce.

<sup>2</sup> The estimates for 1939 are based on incomplete data and are subject to revision.

<sup>3</sup> Revised.

<sup>4</sup> Work-relief not elsewhere included. See table 6.

## Residential Construction

The value of new residential construction in 1939 is estimated to have been nearly 40 percent larger than in the previous year. This increase, as table 5 shows, is made up of a rise of 37 percent in private residential

construction and an increase of 150 percent in publicly owned residential work. The expansion of private residential construction accompanied a generally favorable market situation. The increase in public residential construction resulted from the fact that the program of the United States Housing Authority began during the year to reach the stage of actual construction on a substantial scale. The peak of construction operations under the present USHA program, however, was not reached during 1939, and a further

Table 3.—Estimated Value of New Construction, by Principal Uses or Functions of Projects  
(Millions of dollars)

Item	1929-39, average	1932	1933	1934	1937	1938	1939 <sup>1</sup>
New private construction:							
Residential (nonfarm).....	4,000	641	814	1,101	1,393	1,390	1,900
Commercial.....	1,158	263	130	268	388	1,311	214
Factory.....	640	73	128	222	261	1,192	200
Other nonresidential.....	639	230	104	184	185	237	280
Total nonresidential building.....	2,437	566	362	674	834	1,740	765
Deduct nonresidential building by utilities.....	74	22	10	16	29	24	30
Total nonresidential building <sup>2</sup> .....	2,413	539	352	658	805	1,716	735
Farm construction (includes repairs).....	488	123	175	328	300	330	330
Public utility construction <sup>3</sup> .....	1,416	462	245	484	640	500	550
Light and power production and distribution.....	270	121	62	106	172	182	160
Total new private construction.....	8,343	1,787	1,091	2,551	3,228	3,932	5,515
New public construction:							
Total new public construction <sup>4</sup> .....	2,330	1,704	1,219	2,154	2,614	2,157	2,800
Residential.....				81	93	32	80
Nonresidential building.....				621	440	542	780
Total new private and public construction.....	10,703	3,501	2,310	4,705	5,842	6,089	8,315

<sup>1</sup> The estimates for 1939 are based on incomplete data and are subject to revision.

<sup>2</sup> Revised.

<sup>3</sup> Excluding nonresidential building by utilities.

<sup>4</sup> Private ownership only.

<sup>5</sup> Only those items are shown under this total for which reasonably accurate preliminary estimates for the year 1939 are available.

expansion of residential construction under the USHA program to a total in the neighborhood of 350 million dollars is to be expected during 1940. The total cost of USHA projects now contemplated under the present program is about 770 million dollars. Of this sum, only about 625 million dollars will be spent for construction, including site improvements, construction and equipment of dwelling structures, construction and equipment of nondwelling structures, and architectural and engineering costs. The remainder goes for land, administrative expenses, financial costs during construction, and other expenditures.

Taking into account the 75 million dollars spent for construction during 1939, and the estimated 350 millions that are likely to be spent during 1940, it appears that about 200 million dollars will remain on the basis of funds now available for construction in 1941. Public residential construction in 1940 should be further increased by some state and local construction independent of the USHA program and by small amounts of residential construction by other Federal agencies.

Annual figures for the total number of nonfarm dwelling units on which construction was started in the entire United States increased substantially. It is estimated by the Bureau of Labor Statistics that work was started during the year on 475,000 dwelling units, as compared with 347,000 in 1938. While the major part of this increase in the number of units started occurred in privately owned residential construction, the volume of public residential construction undertaken during the year rose markedly, showing a much larger percentage increase than that for private residential work. Approximately 57,000 of the 475,000 units started during the year were under the program of the United States Housing Authority, while in 1938 this public program had accounted for only about 7,000 units.<sup>1</sup>

While annual figures for both residential work done and residential construction initiated show substantial increases in 1939, it appears probable that the net increases in activity from month to month (after allowance for the usual seasonal changes) were not large during 1939 itself, and that the upward movement in the annual figures reflects the fact that there was a rising trend in 1938. The basis for this belief is the behavior of the volume of new residential construction initiated, as measured by contract awards. An index of the value of contracts awarded for residential building is presented in figure 10, in comparison with a similar index for all types of construction. During the first 9 months of 1938 the index of residential contracts rose rapidly, and by late 1938 had reached a level higher than at any other time since 1929. Thereafter, until the middle of 1939, it remained substantially unchanged. In the last part of 1939 a further rise occurred, partly because of a rapid expansion (on a seasonally adjusted basis) of private construction of one- and two-family houses, and partly because of the increase in the volume of publicly owned residential work.

The maintenance of a moderately high level of private residential construction during 1939 was facilitated by relatively favorable real-estate market conditions, as well as by various governmental actions which are discussed below. Although, for the first year since 1932, the net increase in the number of available dwelling units appears to have been larger than the net increase in the number of families, the excess was small, and residential vacancies appear in general to have undergone only minor changes during 1939. The rather fragmentary information available suggests, in fact, that vacancies remain close to the relatively low point reached in early 1937. The down-

<sup>1</sup> These figures for the number of dwelling units started are not comparable with the estimates of the value of work done during the year, though they serve as the basis for the value estimates for private work. The former relate to work started, the latter to the value of work done, as measured by expenditures for materials, labor, and other items. In addition, the value estimates include nonhousekeeping residential structures and additions to residential structures, which are not covered by the estimates of the number of family dwelling units on which construction was started.

ward shift in the price class of new dwellings constructed which, on the basis of the average permit value per unit, occurred between 1937 and 1938 appears not to have continued during 1939, as the average permit value in 1939 was substantially the same as in the preceding year.

Residential rentals, as measured by the National Industrial Conference Board index of the rents set in new rental contracts, which had declined 2.8 percent during 1938, were practically stable during the first half of 1939, and rose slightly beginning with July to bring the index for December 1939 to a point fractionally above that for December 1938. Selling prices of residential properties at the end of the year were also somewhat higher than in December 1938. The National Association of Real Estate Boards reports that prices were higher than a year ago in 23 percent of the cities reporting in their semiannual survey of the real estate market, the same in 64 percent of the cities, and lower in only 13 percent. According to the same survey, mortgage interest rates continued to decline during the year. Rates in December 1939 were at the lowest level yet reached, and were more nearly uniform geographically than at any previous time.

#### Changes in Federal Housing Administration Procedure.

The influence of government on residential construction was felt not only in the direct construction of residential structures under the program of the USHA but also through the actions of many other governmental agencies. Particularly important in this respect were the amendments to the National Housing Act, approved June 3, 1939, and the consequent changes in the FHA regulations. Various provisions of the act which were scheduled to expire on the 1st of July were extended, and a number of other changes were made.

The amendments, together with the revisions in regulations which became effective July 1, made specific provision for insurance, under title I of the act, of loans up to \$2,500 for the construction of low-cost houses. The maximum maturity of such loans was extended to 10 years and 32 days, and an insurance premium charge of one-half of 1 percent per annum of the net proceeds of the loan was instituted, to be paid by the lender.

In September, further changes were made in the regulations. The maximum maturity of the small-house construction loans under title I was lengthened to 15 years and 5 months; the borrower was required to make only a 5-percent down payment, in cash or in land; and regulatory restrictions in connection with the plan were kept to a minimum. In December, changes in the regulations were again made, in a further effort to render these loans on low-cost houses more attractive to both borrowers and lenders. In consequence of the growing interest in title I loans for new small-house

construction and of the revisions in regulations, the number of loans increased in 1939, though the proportion of all residential construction financed through these channels remained very small. During 1939, the number of loans reached 10,783, while only 5,845 such loans had been made during the preceding year.

The amendments approved June 3 also made certain changes in connection with the FHA's rental housing program. Payment of prevailing wage rates was required in the construction of projects, and restrictions were imposed preventing the amount of the mortgage from exceeding the estimated cost of the structures. The effect of the latter restriction was to remove certain opportunities for profit through increases in land values resulting from construction of the housing developments. In addition, the Federal Housing Administration, through administrative action, discouraged new projects in some cities where rentals could not be made low enough to find a satisfactory market. The volume of new projects approved by the FHA (as measured by those accepted for insurance) thus fell sharply in 1939.

Finally, effective August 1, the maximum permissible interest rate on small home mortgages under title II was reduced from 5 percent to 4½ percent, and the maximum rate on mortgages on large-scale rental projects from 4½ to 4 percent.

#### Private Nonresidential Construction

In contrast with residential construction, the value of business construction during 1939 increased only moderately as compared with 1938. For new commercial buildings, expenditures were little, if any, larger in 1939 than in the previous year. Vacancies in office buildings continued high, the National Association of Building Owners and Managers reporting that 18 percent of office space in over 100 cities was vacant on October 1, 1939. In consequence, construction of buildings of this type was at a relatively low level in most cities. Construction of neighborhood store buildings, however, was encouraged by extensive residential construction and by the growth of new residential areas.

For new factory construction actual expenditures for work done during 1939 were only moderately higher than in 1938. The volume of industrial construction initiated during the year, however, rose sharply, increasing 44 percent over the previous year as measured by contract awards in 37 States reported by the F. W. Dodge Corporation. The explanation for this difference in behavior has several aspects. Shortly after the sharp decline in industrial production in 1937, which increased excess plant capacity in most industries, the volume of contract awards for factory construction also decreased, and in 1938 reached a very low level. On the other hand, actual construction operations in 1938 were sustained by the necessity of completing the large volume of projects started in the latter half of 1937.

In 1939 the situation was reversed. The volume of work initiated, in response to rising levels of output, began to increase, while the volume of construction activity was held down by the small amount of unfinished work carried over from 1938. After the outbreak of the European war and the beginning of the rapid rise in industrial production in September, the increase in the volume of work initiated became more pronounced. In the last 4 months of 1939, contracts awarded for factory construction were 70 percent larger than in the corresponding period of 1938, though the

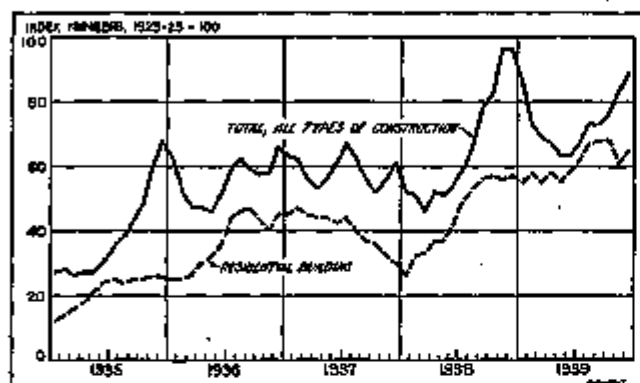


Figure 19.—Indexes of the Value of Construction Contracts Awarded in 37 States (Adjusted for Seasonal Variation), 1925-39 (Computed by the Board of Governors of the Federal Reserve System From Data Compiled by the F. W. Dodge Corporation).

NOTE.—Indexes for December 1939 are preliminary.

resulting expansion in actual construction operations will be felt mainly in the first part of 1940. Despite this increase, however, contract awards are still small in comparison with the best months of 1937.

### Public Construction

The total value of public construction increased in 1939 by over 500 million dollars, or 13 percent. The increase was thus of about the same magnitude, both absolutely and proportionately, as the rise in private work. As indicated above, expansion of public construction resulted primarily from the effects of the Public Works Administration program of 1938. While work on all projects under this program was required to be started before the end of 1938, construction operations were not under way in any substantial volume until the early part of 1939. Moreover, when the projects were once started, the pace of work was perhaps particularly rapid because of the necessity of completing all projects before the middle of 1940, in conformity with the requirements of the authorizing legislation. On the basis of "reported project costs" as compiled by the Public Works Administration it is estimated that expenditures on PWA projects in 1939 (including Federal and non-Federal funds) were approximately 1,200 million dollars, as compared with 581 million dollars in 1938. In both years the major part of the expenditures were on non-Federal projects. In view of the diminished volume of work remaining unfin-

ished at the end of 1939, the value of construction to be done on PWA projects during 1940 is unlikely to exceed 600 million dollars, if no further appropriations are made.

The predominant influence which the large volume of construction contracts awarded under the Public Works Administration program exercised on total contracts during the last part of 1938 and the early part of 1939 is indicated by the seasonally adjusted indexes for all types of construction shown in figure 10. The rapid rise in the volume of contracts awarded that began about the time the PWA program was initiated in June 1938 culminated in December, when the seasonally adjusted index reached the highest point since mid-1930. In early 1939 the volume of work initiated, as measured by contract awards, was high, but fell sharply as the award of contracts on PWA projects approached completion. Until July, however, public contracts were higher in each month of 1939, except May, than in the corresponding month of 1938. By mid-1939 the index of total contracts had lost about two-thirds of the rise that had taken place between March and December 1938. Since that time some increase has occurred, aided in the midsummer and early fall by the rise in residential construction and affected very sharply in the last 2 months of 1939 by inclusion of two large Federally owned dam and power projects, one of which was of sufficient size to account for nearly one-third of all contracts awarded in the month of December.

Table 6.—Estimated Work-Relief Expenditures for Construction Purposes<sup>1</sup>  
(Millions of dollars)

Item	1935	1936	1937	1938	1939
Construction not otherwise included in table 4: <sup>2</sup>					
Highways, roads, streets, etc.	67	658	452	305	673
Public buildings	15	85	65	76	71
Housing	2	2	1	3	1
Public recreational facilities	2	64	46	58	43
Irrigation and water conservation	—	78	52	49	41
Electric utilities	1	4	4	4	8
Water supply	6	41	36	46	43
Sewerage systems	20	122	96	123	116
Transportation facilities	—	40	34	40	39
Miscellaneous	4	—	—	—	—
Total	114	1,130	775	1,203	1,632
Construction included in other items of table 4: <sup>3</sup>	—	160	120	135	1,110
Total work-relief construction	114	1,290	895	1,337	2,742

<sup>1</sup> Includes estimated construction expenditures of the Civil Works Administration, the Federal Emergency Relief Administration, the Works Progress Administration, and the Civilian Conservation Corps. Includes both new work and maintenance. Excludes expenditures for educational, professional, and clerical projects and other projects not considered to involve construction. For a fuller explanation, see tables 53 and 54, Domestic Commerce Series No. 10, Construction Activity in the United States, 1915-37, published by the Bureau of Foreign and Domestic Commerce.

<sup>2</sup> The figures here presented for several of the categories have been reduced below those appearing in the Treasury Department reports. This reduction has been made to avoid double counting for certain construction which is included in other items of table 4 and to omit items that are not considered to be construction. The categories concerned, and the proportion of the total here included, are as follows: Public buildings, one-half; housing, one-half; public recreational facilities, one-third.

<sup>3</sup> Estimated amounts of work-relief construction included in the data for nonresidential building contracts awarded, as reported by the F. W. Dodge Corporation, which are used as the basis for the estimates of new nonresidential building in table 5.

<sup>4</sup> Work-relief construction included in the estimates for new public construction in table 4 cannot be separated from the totals there shown and a distribution of this work by type is not available.

<sup>5</sup> Preliminary, subject to revision.

The contribution made by public residential construction to the total increase in public construction

has already been discussed. However, the increases under the USHA and PWA programs were offset in part by a decrease of nearly 200 million dollars in the amount of work relief construction, as the volume of funds available for work relief was reduced. As table 6 shows, the reduction in work-relief construction was general, affecting practically all types of work.

### Construction Costs and Related Factors

The increase in construction activity which occurred during 1939 was aided by a generally stable, or perhaps declining, level of costs. The index of the cost of construction of a small house prepared by the Federal Home Loan Bank Board, which appears in figure 11, records a slight drop in costs during the early part of

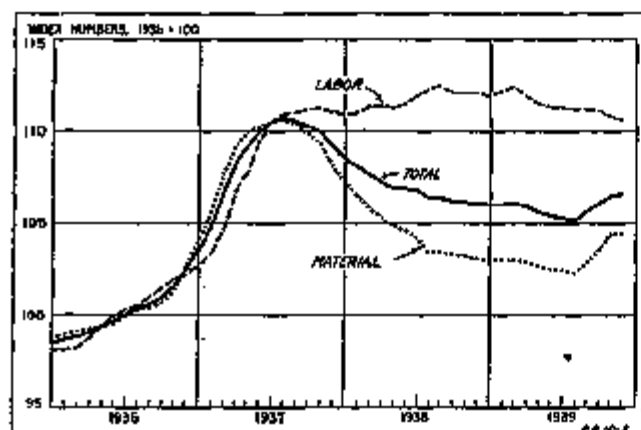


Figure 11.—Index of Construction Cost for a Standard Six-Room Frame House, 1936-39 (Federal Home Loan Bank Board).

NOTE.—Data are as of the first of each month.

the year, followed by an increase immediately after the outbreak of the European war in September. This increase in costs at the end of the year occurred almost entirely in the prices of materials, as wage rates remained substantially unchanged. The diversity of movement which has characterized the components of this index since early 1937 has thus continued. The decline in costs from August 1937 to August 1939 was caused by a relatively rapid drop in material prices combined with an almost stable level of wages. Likewise, the ensuing rise has resulted from changes in the materials component only.

To some extent the weakness of prices during the first part of 1939 may be attributable to various governmental pressures for lower costs, including the investigation by the Department of Justice of restrictive practices within the construction industry. While the effect of this investigation on construction costs cannot be ascertained, there is evidence that in several cities substantial declines in the prices of certain materials and in the costs of certain kinds of work have followed very closely after the undertaking of the investigation in those communities.

Labor costs and labor relations within the construction industry have been further affected by two other

developments which occurred during the year, both of which may prove more important in future years than in 1939. The first of these was the establishment, by the Congress of Industrial Organizations, of the Construction Workers Organizing Committee to effect the organization of construction labor into industrial unions. Particular attention is being given to residential construction workers, who are now mainly unorganized. While progress of the CWOC was perhaps not extensive during the year, agreements were negotiated in several cities. The second development was the action taken by the American Federation of Labor to lessen the extent of jurisdictional disputes. Under the new ruling made by the president of the Building Trades Department, jurisdictional strikes are forbidden and machinery is set up for the prompt rendering of a temporary decision with regard to the division of work among the various crafts and for following this with a well-considered permanent decision, to be binding on all of the unions concerned. The lasting effects of this new machinery to reduce the number of jurisdictional disputes cannot yet be determined, though some improvement in the situation appears to have taken place during the year just ended.

## Public Utilities

### Electric Power

Electric power production, which had recovered sharply during the second half of 1938, declined less than seasonally during the first 5 months of 1939 and exceeded corresponding 1938 levels. Beginning in July a marked upturn became evident, which by the end of the year brought the industry to an all-time high.

Total energy generated in 1939 is estimated at 123 billion kilowatt-hours—a new high. For the first time in history energy sales to ultimate consumers exceeded 100 billion kilowatt-hours, reaching an estimated 107 billion for the year. The experience of the industry shows marked secular increases in output, although, in the short run, increasing business is linked with general economic activity.

Residential sales have been increasing almost continuously since 1920, and in recent years have represented nearly one-fifth of all sales. Sales to farm customers have shown a steady rise since 1935, reaching over 3 billion kilowatt-hours in 1939, more than double sales in 1932. New rural lines constructed by private industry are estimated by the Electrical World at 20,000 miles, and the Rural Electrification Administration reports 100,000 miles of new line in 1939.

The downward trend of revenue per kilowatt-hour was continued during 1939. This trend has been particularly uniform in residential and small commercial sales, as is apparent from the accompanying table. Revenue per kilowatt-hour from total sales declined from 2.31 cents in 1938 to 2.15 cents (see table 7).

New generating capacity added during 1939 fell off markedly from 1938 additions, disclosing a typical lag behind revenues. The Electrical World estimates prospective 1940 additions to capacity at over 2,000,000 kilowatts, a figure not attained since 1930. It is predicted on the basis of present plans that capital expenditures for new construction in 1940 will reach \$600,000,000, as compared with \$430,000,000 in 1939. It is doubtful whether the companies will finance expenditures of this volume so largely out of earnings as in recent years.

Table 7.—Revenue per Kilowatt-Hour of Electrical Energy Sold, by Consumer Classes, 1929-39<sup>1</sup>

Year	[Cents]				Total
	Residential	Farm	Commercial, small	Commercial, large	
1929	6.30	2.54	4.24	1.38	2.57
1930	6.00	2.61	4.13	1.41	2.53
1931	6.74	2.70	4.17	1.47	2.75
1932	5.57	2.06	4.14	1.53	2.85
1933	5.40	2.85	4.07	1.38	2.66
1934	5.34	2.65	3.99	1.35	2.68
1935	4.94	2.86	3.82	1.30	2.46
1936	5.55	2.77	3.90	1.19	2.27
1937	4.38	2.34	3.44	1.15	2.10
1938	4.21	3.00	3.33	1.21	2.31
1939	4.04	2.59	3.22	1.12	2.16

<sup>1</sup> Data for 1930 are slightly affected by classification changes.

Source: Edison Electric Institute.

An outstanding development in the program of the Tennessee Valley Authority was the acquisition of several large private utility properties at a price totaling approximately \$110,000,000. Purchases during 1939 brought the total number of acquisitions to 22, in which the Authority bought transmission lines and generating stations, and municipalities and cooperatives bought the distribution systems.

Table 8.—New Capacity Added, Capital Expenditures, and Security Issues by the Electric Power Industry, 1934-39

Year	New capacity added (1,000 kw.)	Capital expenditures	Security issues	
			New capital	Total
		Millions of dollars		
1934	721.1	289.7	30.7	1,331.9
1937	1,118.5	455.5	52.0	1,626.0
1938	1,095.0	482.0	121.1	1,698.1
1939	1,284.8	420.0	16.2	1,721.0

<sup>1</sup> Estimated.

Source: Capacity added and capital expenditures, from Electrical World; security issues, from Commercial & Financial Chronicle.

### Railroads

Railroad operations during 1939 improved markedly. Freight revenue, constituting four-fifths of total revenue, rose by 393 million dollars, while passenger revenue increased about 12 million dollars. Monthly carloadings during the year were consistently higher than in the corresponding months of 1938. Despite a more than seasonal decline in December, carloadings in the last quarter rose 16 percent above those in the final quarter of 1938, as compared with an increase for the year

of only 12 percent. The railroads thus participated extensively in the business expansion of the fall.

The experience of the railroads during 1939 again illustrates their dependence for improved operating results upon the expansion of production and national income. The movements of gross railway revenue, paralleling those of national income and production, are shown in figure 12. The importance of volume is apparent from the disproportionate variations in net operating income (after expenses but before fixed charges), also shown in figure 12.

The fundamental reason for the dependence of the railroads upon volume is, of course, the high proportion of fixed costs, which do not vary with the volume of traffic. No progress was made during the year toward reducing these costs through consolidation and other

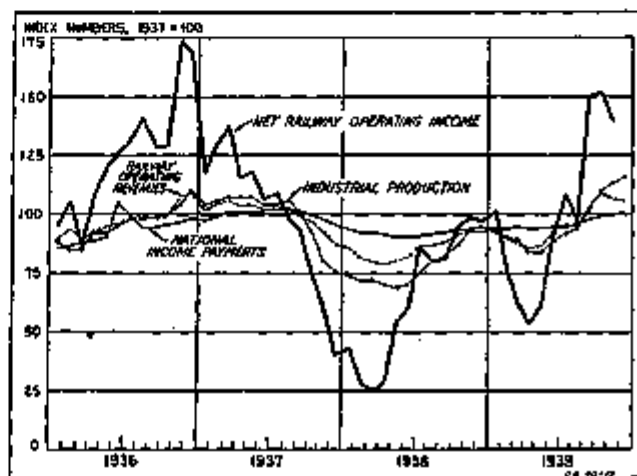


Figure 11.—Indexes of Financial Operations of Class I Railways, National Income, and Industrial Production, 1936-39 (Railway Data, Except for Operating Revenues for December 1939, and Industrial Production, Board of Governors of the Federal Reserve System; National Income Payments, and Estimate for Railway Operating Revenues for December 1939, U. S. Department of Commerce).

Note.—All indexes are adjusted for seasonal variations; indexes for financial operations of railways also are adjusted to a uniform month basis, and indexes of industrial production also for the number of working days in the month. Data for net railway operating income for December 1939 were not available in time to include them in this chart.

internal economies, steps which the Interstate Commerce Commission has repeatedly declared to be of major importance.

While the rapid rise of net operating income accompanying a gradual increase of gross revenues is explained by the high proportion of fixed costs, the still sharper rise of net income (see table 9) is traceable to the high proportion of net operating income that is taken by fixed charges (bond interest, rentals, etc.). These totaled \$728,428,000 in 1929, and by 1938 had been reduced only slightly more than 10 percent. Operating revenue during the same period fell 43 percent. Consequently, fixed charges, which in 1929 had taken 58 percent of net operating income, represented 175 percent of that item in 1938; part of the excess was charged against non-operating income, but such income was not sufficient to cover all of the fixed charges. The corresponding proportion for 1939 is estimated at 110 to 115 percent.

### Railroad Capacity.

With the expansion of business in the fall of 1939, the problem of railroad capacity has become increasingly important. The number of cars on line has decreased 28 percent since 1928, so that the 1939 upsurge reduced the surplus to a narrow margin. The minimum surplus during the year was 64,000 cars, compared with 107,000 in 1929, according to the Association of American Railroads. A similar situation prevails for locomotives; it is estimated that the 1939 peak carloadings reduced the reserve of freight-locomotive capacity to only 10 percent.

Table 9.—Net Railway Operating Income, Fixed Charges, and Net Income, 1932 and 1934-39, for Class I Steam Railways (Excluding Switching and Terminal Companies)

(Millions of dollars)			
Year	Net operating income	Fixed charges <sup>1</sup>	Net income <sup>2</sup>
1929	1,392.0	728.4	( <sup>3</sup> )
1932	926.4	701.4	160.4
1933	967.1	698.5	188.5
1934	960.2	670.3	98.7
1935	873.2	654.0	121.6
1936	888.2	683.0	90.0

<sup>1</sup> Includes interest, rentals, and certain minor charges.

<sup>2</sup> Calculated after inclusion of nonoperating income.

<sup>3</sup> Comparable figure not available.

(<sup>4</sup>) Deficit.

Source: Interstate Commerce Commission; 1939 estimated from data for first 11 months.

While equipment buying increased sharply in September as business improved, the total for the year was still 60 percent below the 1929 figure of \$397,000,000. As table 10 shows, neither equipment nor maintenance expenses have been at levels comparable with those of 1929.

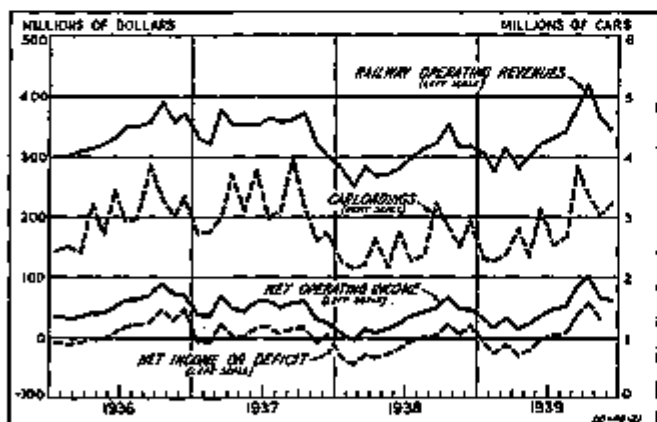


Figure 13.—Financial Operations and Carloadings of Class I Railways, 1934-39 (Financial Operations, Except for December 1939, Interstate Commerce Commission; Carloadings, and Estimates for Financial Operations for December 1939, Association of American Railroads).

NOTE.—Data for financial operations exclude switching and terminal companies, while data for carloadings include cars loaded in switch service movement and given to class I roads for the road haul. Data for "Net Income or Deficit" for December 1939 were not available in time to include them in this chart.

The recent approach to full utilization of capacity is made more significant by the accumulated obsolescence of railroad equipment. Recent technical developments have accentuated this factor. With the heightened competition for traffic, the railways have in-

creased the speed and efficiency of their freight service. New materials for the construction of freight cars, as well as mechanical improvements, have made this possible. However, the net effect of these advances has been to accentuate the obsolescence of existing equipment. This applies with equal force to locomotives, 68 percent of which are at least 20 years old. If business continues to improve, further increases in equipment purchases will ensue. Meantime, the high level of fixed charges contributes to the deferment of both replacement and maintenance.

### Reorganization and Finance.

Little actual reduction in fixed charges was achieved during 1939. Under reorganization plans approved by the Interstate Commerce Commission or recommended by examiners, however, very substantial reductions of interest charges are in prospect. Under these plans, a reduction of three-fourths in the annual fixed charges of 21 roads is proposed. At the close of the year none of these plans was in operation, although one had been ordered placed in effect.

Table 10.—Equipment Purchases, Expenses for Maintenance of Equipment, and Fixed Charges, 1929-39, Class I Steam Railways

Year	Equipment purchases		Expenses for maintenance of equipment		Fixed charges <sup>1</sup>	
	Millions of dollars	Percent of 1929	Millions of dollars	Percent of 1929	Millions of dollars	Percent of 1929
1929	397.1	100.0	1,202.0	100.0	728.4	100.0
1930	166.5	41.9	1,013.3	84.7	716.7	98.4
1931	28.9	7.3	817.0	67.9	708.9	97.3
1932	2.6	.7	618.9	51.5	701.5	96.3
1933	2.9	.7	568.7	47.3	702.7	96.6
1934	68.9	17.3	637.9	53.0	694.4	95.3
1935	25.7	6.5	681.9	56.7	686.7	94.2
1936	222.6	56.1	782.5	65.1	683.5	93.8
1937	173.3	43.6	821.7	68.7	670.3	92.0
1938	14.0	3.5	675.6	56.2	654.0	90.0
1939	100.0	25.2	764.0	63.5	655.0	90.0

<sup>1</sup> Includes interest, rentals, and certain minor charges.

Source: Expenses for maintenance of equipment and fixed charges, Interstate Commerce Commission; equipment purchases, Railway Age.

Meantime, accompanying capital expenditures estimated at \$375,000,000, the railroads refinanced \$101,000,000 of bonds and notes and raised \$85,000,000 in new capital. The corresponding 1938 figures were \$56,000,000 and \$16,000,000, respectively. Reconstruction Finance Corporation loans to the railroads increased during 1939 by \$12,700,000 to \$448,300,000. This is the highest year-end total on record.

One class I railroad went into bankruptcy during the year. The number of roads in charge of receivers or trustees at the end of the year decreased from 109 to 108, and the total mileage operated by receivers or trustees decreased slightly—from 76,938 to 76,801.

### Competition and Rates.

In its 1939 annual report the Interstate Commerce Commission commented at length on the railroads' intensified policy of meeting the competition provided by other types of carriers, particularly motor carriers. A related development during the year was a Com-

mission decision authorizing lower rates on multiple-carload shipments than on single carloads. The Commission had previously recognized only carload and less-than-carload rates; this ruling is, therefore, a significant new departure.

The increase in the basic passenger fare from 2 cents to 2½ cents a mile, which was authorized in July 1938, continued unaltered through 1939 and was extended in January 1940 for 60 days beyond its original expiration date in that month. Underlying the plea for maintenance of the higher basic fare, however, was experimentation with the sliding scale of round-trip coach fares authorized in June 1938, under which an initial round-trip rate of 2½ cents a mile is progressively lowered to 1.7 cents a mile for trips longer than 900 miles. The Commission granted an increase of express rates in a companion proceeding to that in which a general increase of freight rates was authorized in 1938. The increases were adjusted to enable the Railway Express Agency to compete more effectively for a "fair share of the small-package business."

### Motor and Air Transportation

Motor-truck operations expanded during 1939, continuing the up-turn which began late in the first quarter of 1938. The rate of recovery of truck loadings appears

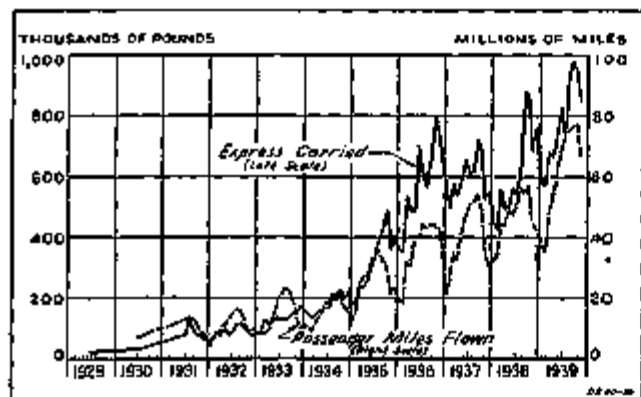


Figure 14.—Passenger Miles Flown and Express Carried by Scheduled Airlines in the Continental United States, 1929-39 (Civil Aeronautics Authority).

NOTE.—Data for December 1939 were not available in time to include them in this chart.

to have exceeded that of railroad car loadings. Interstate Commerce Commission reports on motor carriers for the first 6 months of 1939 indicate an increase of the operating revenues of class I intercity freight motor carriers amounting to 30 percent of the revenues in the first half of 1938. Tons of revenue freight transported by these 640 carriers increased slightly more than 20 percent during the period, and net income increased markedly. The 75 class I local carriers reported very slight gains.

Statistics for both local and intercity bus operations collected by Bus Transportation, covering regular route operating companies earning over \$100,000 annually, indicate substantial increases over 1938.

Air transportation showed marked increases in 1939. Express carried was 30 percent above the 1938 total, and express-revenue miles flown were up 19 percent. The number of passengers carried increased 40 percent, while passenger-miles flown were about one-third above the 1938 mileage. (See fig. 14.)

### Shipping

The most notable development in shipping during 1939 was the outbreak of war in Europe and the passage of the Neutrality Act which it occasioned. In the first quarter of 1939 tramp shipping rates sagged below 1938 charges; later increases restored rates to approximately their previous positions. With the outbreak of war a general rise occurred in tramp and liner rates to all ports except those in Central America and the West Indies. Southbound rates on the Atlantic to South American ports rose about 10 percent, while on the Pacific the rise was somewhat greater. For northbound traffic there was a rise of one-third on the Atlantic and about 50 percent on the Pacific.

In the period September 7-9, rates to the United Kingdom and the Continent—determined by the freight conferences for these areas—rose one-third. In the Scandinavian and Baltic service, rates were doubled, individual shipowners setting rates at their own discretion. Subsequent advances in the rates to these European areas became subject very largely to government control, both as regards belligerent and neutral countries. Rates on traffic to the Far East increased about a fifth.

According to the United States Maritime Commission, 32 vessels with an aggregate tonnage of 518,000 were transferred from the combat zone created on November 4, 1939, by the Neutrality Act. Many of these have been shifted to other routes where expanding business has warranted, while some of the others are in process of transfer or sale. The effect of this legislation on United States shipping cannot as yet be accurately determined, but indications are that it is less serious than had been anticipated.

### Communications

Year-end estimates of the number of telephones in service in the United States indicate an all-time peak of about 20,800,000 stations, an increase over 1938 of about 846,500 stations. Operating revenues of 90 major carriers for the first 11 months of 1939 amounted to \$1,116,100,000, compared with the 1938 figure of \$1,060,500,000. Net operating revenues of \$370,591,000 for 11 months represented an increase of nearly 12 percent over the \$332,150,000 for the corresponding period in 1938.

For the telegraph industry, the improvement in general economic conditions during 1939 brought a marked reduction in the net deficit which has been characteristic

of the industry in recent years. Operating revenues of the three telegraph carriers reporting to the Federal Communications Commission amounted to \$106,015,000 during the first 11 months of 1939, representing an increase of 4 percent over the corresponding period of 1938. Whereas in 1938 both major carriers operated at a net deficit, in 1939 Western Union showed a net income of \$828,768 for the first 11 months of the year. The industry totals shown below reflected this in a deficit of \$2,944,000, as compared with a net deficit of \$5,777,000 for the first 11 months of 1938.

Year	Operating revenues	Operating income	Net income
	Thous. of dols.	Thous. of dols.	Thous. of dols.
1938	122,116	15,921	5,890
1937	123,993	8,909	1,187
1936	112,858	2,915	5,673
1935 <sup>1</sup>	102,305	2,149	6,777
1939 <sup>2</sup>	106,015	4,990	2,944

<sup>1</sup> Deficit.

<sup>2</sup> 11 months.

Source: Federal Communications Commission.

The industry has been in critical condition because of the costs of maintaining duplicate and excess facilities and the competition of other forms of communication. The Postal Telegraph & Cable Corporation, which had been in bankruptcy proceedings since 1935, completed a plan of reorganization during the year, which was confirmed by the Federal District Court in January 1940.

In response to a Senate resolution adopted during the first session, the Federal Communications Commission in December submitted a report on the telegraph industry. The Commission emphasized the effects of competition and of excess facilities and recommended that the law be amended to enable Western Union and Postal to merge their land lines. It was strongly urged, however, that merger be limited to the telegraph industry and that telephone and radio remain competitive with the telegraph. This and other problems of the telegraph industry are being investigated by a subcommittee of the Senate Interstate Commerce Committee, and public hearings are expected to be held early in the spring.

## Employment and Unemployment

With the increase in business activity during the year opportunities for employment rose appreciably, and by December the number at work in nonagricultural pursuits<sup>1</sup> approached 35 million, an increase of more than 1 million for the year. As is shown in figure 15, the gains amounted to about 2.5 million over the 1938 low recorded in July, and nearly 9 million over the minimum 1933 figure. Compared with maximum employment in the decade just completed, the number

of workers has remained about 300,000 below the 1937 high, and more than 2 million under the 1929 peak.

Agricultural employment<sup>2</sup> has continued to evidence a slight downward tendency, but for the year the offset against the increased nonagricultural employment was of no great significance.

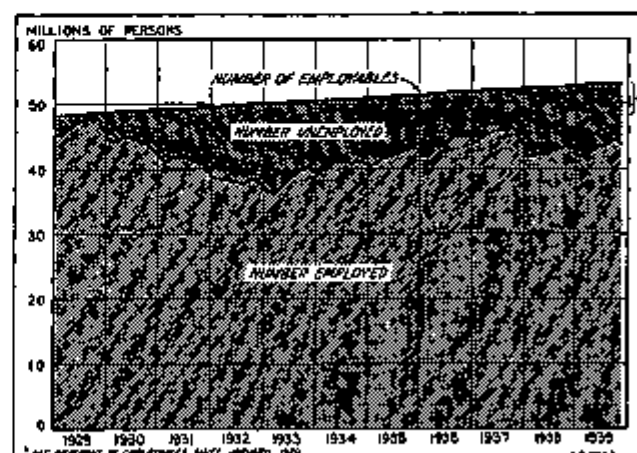


Figure 15.—Number of Persons Employed and Unemployed in the United States, 1929-39.

NOTE.—Figures for unemployment are estimates made for the Committee on Economic Security by Robert B. Nathan and kept up to date by him.

### Wide Gains in Manufacturing.

The rise during 1939 was particularly prominent in manufacturing and mining industries. After May there was an almost continuous increase, with the rate of gain markedly accelerated in the early fall months. From May through October the number of employees in these industries rose more than 200,000 per month, a somewhat more than seasonal increase. Employment leveled off subsequent to October, reflecting seasonal influences and the less rapid increase in production.

In the aggregate the mining and manufacturing industries expanded employment by more than 850,000 workers in 1939; the additions by these industries accounted for about two-thirds the rise in the nonagricultural total. At the end of the year the number employed in mining and manufacturing was only about 750,000 below the 1929 and 1937 peaks. Other groups contributing substantially to the larger volume of employment over the year were transportation and public utilities, trade and finance, and government. For these, however, the aggregate gain was less than 400,000.

In factories the largest part of the rise in employment in 1939 occurred in the durable-goods industries. Little change occurred in the first few months of the

<sup>1</sup> Data relating to nonagricultural employment are compiled by the U. S. Department of Labor, Bureau of Labor Statistics, to cover all persons engaged in gainful work outside of agriculture (including self-employed and casual workers) except those employed on Government emergency work programs. These data are undergoing a revision which may materially affect the figures for recent years. Farm employment data are compiled by the U. S. Department of Agriculture, Bureau of Agricultural Economics.

year, but from May to December the seasonally adjusted index for this group increased more than one-fifth, while for the non-durable-goods index the rise was only 5 percent. The accelerated rate of factory output subsequent to August resulted in a marked improvement in the rate of gain for employment in durable-goods industries, but for non-durable-goods lines the expansion rate was not much greater than that of the summer months. The rise in durable-goods industries has eliminated a large part of the disparity between the two group totals when comparison is made with earlier years. Thus, in December, the seasonally adjusted durable-goods employment index stood at 94.1 (1929=100) and the index for non-durable-goods industries was 102.7. In mid-1938 the difference amounted to 27 points.

Employment in the mining industries, while influenced somewhat by increased demand for products of the mines, did not show any marked changes from 1938, when averages of the midmonth indexes for the 2 years are compared. The number at work in the fuel-producing industries was somewhat lower than in 1938, on the average, while metalliferous mining and quarrying and nonmetallic mining showed moderate improvement. Workers employed by retail and wholesale trade establishments averaged about the same as in 1938, although the indexes subsequent to April 1939 were above those of the corresponding months of 1938.

#### Factory Average Hours Markedly Higher.

The rising demand for manufactured products in 1939 was reflected in an extension in factory working hours as well as in an increase in the number employed. As for employment, the largest gains in hours worked were concentrated in the durable-goods industries. Several lines showed increases of 4 to 5 hours per week during the year, but in most instances the gains were moderate. In a few cases declines occurred. For all manufacturing industries the average was lifted from 36.6 hours per week in January to 38.0 in August, and thence to 39.1 in November, in comparison with a 1938 low of 33.3 hours per week and a 1937 high of 41.0 hours per week.

Time lost as a result of industrial disputes in 1939 was nearly double that lost in the preceding year, but the total for the period remained well below that of other recent years of comparable business volumes. Man-days idle for the year totaled about 18,000,000 as compared with 9,148,000 in 1938 and 28,425,000 in 1937. More than one-half of last year's loss of time was concentrated in the automobile and bituminous coal industries.

#### Number Without Work Remains Large.

Unemployment continues to be a serious problem despite the marked expansion in general business activity in 1939. Although subject to a considerable

margin of error, estimates of the number of unemployed, including more than 2,000,000 on WPA and CCC rolls, indicate approximately 9 to 10 million idle workers at the close of 1939, as is shown in figure 15. This large volume of unemployed labor power exists despite the record flow of goods and services which was attained in the latter part of the year. Both industrial production and real income on a per capita basis, however, are still considerably below 1929, since there has been an increase of nearly 10 million in the population during the past decade.

In order to attain full employment, with prevailing hours of work per week, production will have to exceed the 1929 per capita level. Even with a return to 1929 per capita output, the available information indicates that there would still be something in the neighborhood of 5 million workers without employment. These unused labor resources would be accounted for by the normal minimum volume of unemployment, technological changes which have displaced labor, and the change in the age distribution of the population which has increased the proportion of these in the working-age group. There is always some unemployment because of seasonal patterns of production, time lapses between jobs, and other irregularities. During the 1920's, this minimum varied around 2 million persons per annum. With the present number of employable individuals, minimum unemployment would probably be somewhat larger.

Technological developments during the past decade have resulted in a substantial increase in the productivity per employee and, more particularly, per man-hour. Much of the increase in productivity per man-hour has been offset by a substantial reduction in the average number of hours worked per week. Even with the substantially curtailed schedule of hours, however, fewer workers are required now than in 1929 for the same output of goods and services. As was pointed out earlier, the number of persons actively engaged in private nonagricultural industries and in the regular government service at the close of 1939 was within 2 million of the 1929 employment figure. At the same time, the real national income in December 1939 was equal to or above the peak of 1929, and certainly above the average for that year. This gives some indication of the higher productivity per employed worker now than prevailed 10 years ago, although significant changes in the relative importance of various industries tend to qualify such a conclusion.

Estimates of the new entries in the labor market in excess of those dying, retiring, or otherwise leaving the labor market vary from 500,000 to 600,000 per annum for the past decade. Thus, the number of employables has increased 12 to 15 percent since 1929, while the population is about 8 percent larger. These new workers could, if fully employed, permit a higher per capita standard of living than prevailed in 1929,

even if average hours of work per week were reduced to completely offset the rising productivity per man-hour. In other words, with full employment at the present time and the same productivity per worker as prevailed in 1929, the per capita real income of the total population would be well above that of 1929.

## Commodity Price Movements

In contrast with most business indicators, whose upward trends were merely accelerated in September of last year, the outbreak of war in Europe had the effect of reversing the general movement of prices. The level of commodity prices at wholesale declined gradually from January through August, continuing a trend which began in the spring of 1937. As a result of the buying wave touched off by the war, the general level of whole-

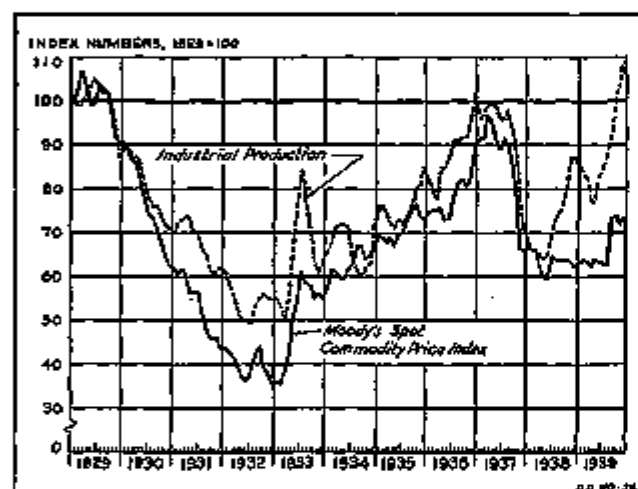


Figure 16.—Indexes of Industrial Production and Commodity Prices, 1929-39.

NOTE.—These indexes have been recomputed, with 1929 as base, from the following: Federal Reserve Index of Industrial production, adjusted for seasonal variations; and the spot price index, covering 15 important commodities, published by Moody's Investors Service.

sale prices rose early in September to approximately its position in the closing months of 1938. By the end of December 1939 the Bureau of Labor Statistics combined index was still almost 10 points below the April 1937 peak of 88.0 (1926=100). To some extent, however, the gaps that had opened during the period from April 1937 to September 1939 between such contrasted groups as farm and nonfarm prices, or raw-material and finished-goods prices, were narrowed after the September upturn.

After the middle of 1938 and throughout the first two-thirds of 1939, prices generally failed to respond to the increase in industrial production. Figure 16 shows the divergence between the movements of prices and production that developed after the middle of that year—a divergence which is all the more interesting in the light of the correlation evidenced between these series during the previous years of the decade. It is true that if foodstuffs are excluded and prices of raw

industrial commodities alone considered, there was some strengthening in the latter half of 1938; but the rise in such prices did not keep pace with the expansion in industrial activity. The large volume of industrial commodity stocks on hand in 1938 is probably the principal reason that a substantial increase in industrial activity could occur without causing a parallel rise in the general level of commodity prices. The rise in industrial activity was checked by the end of 1938, apparently before commodity stocks had been sufficiently absorbed to bring about a significant rise in their prices. Declining activity in the early months of 1939 lessened the demand for raw materials and thus contributed to a further slight weakening of prices.

The sagging tendency of wholesale prices in the first 8 months of 1939 was manifested in all groups included in the Bureau of Labor Statistics wholesale price classification with the exception of building materials, some of the textiles, petroleum products, and automobile tires and tubes. Aside from a marked rise in silk, prices for the latter groups remained substantially unchanged. The only substantial declines recorded in this period were those in farm and food prices. Chief factors accounting for the downswing in these and other groups were bumper world grain crops in 1937-38 in the face of reduced world demand, leading to increased carry-overs; large increases in livestock, encouraged by low feed prices during an extended period; continued large stocks of most other primary commodities; and the decline in industrial activity in the first 5 months of 1939, with its consequent reduction of income in the hands of important consuming groups. Because stocks of many commodities were smaller by the summer of 1939 (just prior to a sharp rise in industrial activity) than they had been a year previously, it is possible that there would have been some rise in prices during the fall months even without the buying wave engendered by the beginning of war.

### Prices Rise With Outbreak of War.

The change in expectations that came with the reality of war in Europe has already been traced. Heavy buying ensued as the result of a general failure to observe that on the basis of 1914 experience there was no danger of immediate price inflation, as well as a failure to note that the positions of the United States and of the belligerents differed considerably in 1939 from the positions in 1914 in several important respects. The immediate result was a rapid rise in many prices, some of which were bid up 30 to 40 percent and more in a short period. The extent of the impact of September events upon sensitive prices, both of foodstuffs and industrial materials, is most clearly revealed in the behavior of Moody's index of the spot prices of 15 commodities. During the year preceding September 1, 1939, the mean deviation of this index had amounted to only 1.47 points, or 1 percent of the mean (a high degree of stability), and the fluctuations from Novem-

ber 1937 to September 1938 had not been very much more marked. From 140.3 (December 31, 1931=100) on August 31, 1939, however, the index advanced to 172.8 on September 22, a rise of 23 percent in 3 weeks. A slow recession to 158.5 by November 29 then occurred; but a new upswing that was in evidence throughout December (mainly in grains, cotton, and silk) carried the index to 170.7 on the 26th, practically as high as the peak reached in September.

Fluctuations somewhat similar to those in the combined index naturally characterize the movements of individual sensitive prices. Table 11 shows for selected items the rapid September rise, the declines in the following 2 months to the end of November, and the renewed trend upward in December.

The increase in the general level of prices subsequent to August was less spectacular, as shown by the comparatively moderate rise in the Bureau of Labor Statistics combined index from a low for the year of 75.0 (1926=100) in August to a high of 79.4 in October. The smaller advance in the general index is a reflection of the fact that finished-goods prices rose less than those of most raw commodities.

Table 11.—Prices of Selected Foodstuffs and Industrial Materials

Item	Aug. 31	Sept. 22	Nov. 29	Percentage change, Sept. 22—Nov. 29	Dec. 26	Percentage change, Aug. 31—Dec. 26
<b>FOODSTUFFS</b>						
Wheat, No. 2, hard, Kansas City, ordinary protein, cents per bu.	87	98	80	0	164	+55.2
Corn, No. 2, yellow, Chicago, do.	45 1/2	58 1/2	53	-8.3	58	+27.5
Eye, No. 2, all, New York, do.	58 1/2	71 1/2	72 1/2	+1.4	86 1/2	+71.0
Sugar, 96° delivered, duty-free, cents per lb.	2.92	3.65	2.85	-19.2	2.85	+1.0
Coffee, Santos, No. 4, New York, do.	7 1/4	7 1/4	7 1/4	-2.1	7 1/4	0
Cocoa, Accra, New York, do.	4.47	6.25	5.50	-12.0	6.00	+3.42
Hogs, Chicago, 1, per cwt.	16.62	7.40	8.28	+22.2	4.32	-5.3
Lard, cash, Chicago, cents per lb.	6.76	8.10	8.30	+24.4	6.32	-9.9
Beef, Chicago, 1, per cwt.	8.92	10.17	9.61	-5.5	9.68	+8.2
<b>INDUSTRIAL MATERIALS</b>						
Cotton, 10-market average, cents per lb.	8.55	8.75	9.50	+8.6	10.08	+24.8
Silk, New York, do. per lb.	2.05	8.17	5.43	-33.2	5.00	+73.6
Wool tops, New York, 1, do.	0.88	1.30	1.16	-10.8	1.16	+31.8
Elk, heavy native steers, Chicago, cents per lb.	11	10 1/2	14	+33.2	13	+36.4
Rubber, plantation, New York, do.	16 1/4	22 1/2	20 1/2	-9.1	20 1/2	+22.2
Copper, electrolytic, New York, do.	10 1/4	12	12 1/2	+4.2	12 1/2	+19.0
Lead, New York, do.	3.05	4.50	5.50	0	5.50	+8.9
Tin, Straits, New York, do.	49 1/2	68	58 1/2	-21.0	49 1/2	+5
Zinc, New York, do.	2.14	0.64	0.88	+36.2	0.88	+24.3
Steel, scrap, 1, do. per gross ton	16.62	12.25	13.54	+10.5	17.67	+13.1

1 U. S. Department of Agriculture. Data represent averages of daily prices for week ended on nearest Saturday except when otherwise noted.

2 Average price for week ended Aug. 28.

3 U. S. Department of Labor, Bureau of Labor Statistics.

4 Iron Age. Based on No. 1 heavy melting steel, quotations at Pittsburgh, Philadelphia, and Chicago. Figure represents average for week ended on nearest Tuesday.

Source: Journal of Commerce unless otherwise indicated.

Inasmuch as the recovery movement prior to the outbreak of war was essentially a consumption recovery and as the subsequent expansion was based so largely on forward buying, the communication of the price rise to finished goods appeared as a decided threat to continued recovery. With capital investment at a comparatively low level, the general upturn might well have been checkmated by a sharp increase in finished-goods prices; and for a while the rise was quite rapid. The

magnitude of the rise that occurred in finished industrial-goods prices can be seen in figure 20. Retail food prices rose from 75.1 (1923-25=100) in August to 79.0 in September. Fairchild's index of prices of department-store articles increased 2.7 percent in 3 months, a large change for this indicator.

This movement appeared to lose some of its strength after the initial impact had once been felt; the weakness in many wholesale prices, resulting in part from a slackening in forward buying and in part from a temporary loosening of quota restrictions on such items as sugar, rubber, and tin, had its effect. There is some reason for believing that the business community had become aware, by the end of the year, of the limitations implicit in the advance in activity and of the dangers inherent in any substantial upward trend of prices to ultimate consumers.

### Changes in Price Relationships

The September reversal of the trend of prices may prove temporary; that will depend on the course of domestic business in 1940, as well as on the character of the war in Europe. It seems quite unlikely, however, that the pre-September structure of prices will be precisely restored. It is therefore of interest to examine the shifts that have recently occurred in the relationships among various groups of prices.

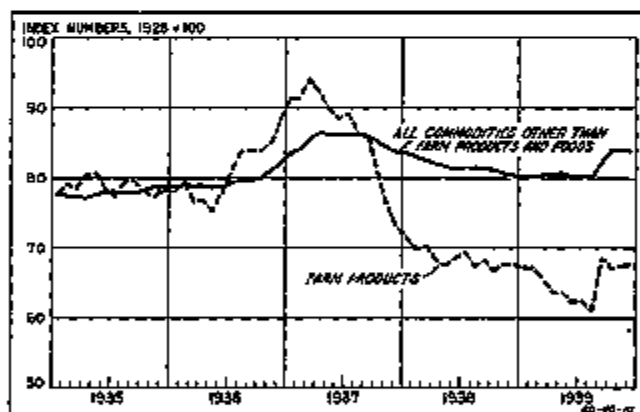


Figure 17.—Indexes of Wholesale Prices of Farm Products and All Commodities Other Than Farm Products and Foods, 1925-29 (U. S. Department of Labor).

The decline in prices after the middle of 1937 affected the components of general indexes in varying degree. Numerous divergencies appeared, the most significant of which (revealed in table 12) were those between farm-product and food prices, on the one hand, and all other commodities on the other, and between raw materials and finished goods. In both cases, divergent tendencies were apparent in 1938, and these became even more marked by the summer of 1939. The decline in 1938, which carried farm-product prices one-third below their 1926 level, had been partially offset by a slight upward movement in the latter part of the year; but in August 1939 they were even lower than at any time during the previous year. Figure 17 shows the

gap that had opened between farm-product prices and prices of commodities other than farm products and foods between 1937 and 1939, until the general upward surge of sensitive prices that occurred in September. The net effect of the recent upturn on farm-product prices in relation to other prices is suggested by figure 17 and indicated more specifically in table 12. Here it may be seen that, while the "all other" commodity index averaged only 2 percent higher in September of 1939

than it had in the first 6 months of the year, grain prices were 15 percent and food prices 8 percent higher. The same point can be made by citing the rise in the ratio of prices received by farmers to prices paid by them from an average of about 75 (1910-14=100) during the first 8 months to 80 during the final 4 months of the year. Such shifts meant a rise in farm income; for it is a commonplace that farm income tends to vary directly with the level of farm prices.

Table 12.—Wholesale and Other Price Indexes for Selected Periods

Item	Annual averages			First 6 months—			Septem-ber 1939	Percent-age change (first 6 months, 1939-Sept. 1938)	Last 4 months, 1939:	Decem-ber 1939
	1938	1937	1939	1937 1	1939 1	Percent change				
WHOLESALE PRICE INDEXES (U. S. Dept. of Labor, 1926=100)										
Combined index, all commodities <sup>1</sup>	64.5	55.3	77.1	57.1	76.4	-12.3	79.1	+2.6	70.3	78.2
Economic classes:										
Raw materials	55.1	54.6	70.3	58.1	69.5	-21.1	72.6	+4.6	72.7	73.3
Semimanufactured articles	52.3	53.3	77.0	57.4	74.5	-14.8	81.9	+2.8	82.3	82.0
Finished products	70.3	57.2	80.4	56.6	80.0	-7.6	81.9	+2.4	82.0	81.7
Farm products	48.2	56.4	65.3	51.3	63.0	-23.7	68.7	+1.7	67.6	67.6
Grains	30.4	58.3	58.6	112.8	58.4	-50.0	65.1	+12.4	65.6	71.6
Livestock and poultry	48.2	53.5	72.2	63.8	73.0	-19.4	70.3	+1.9	69.2	69.3
Feeds	61.0	55.5	70.4	59.0	69.0	-19.1	78.1	+7.9	73.2	71.9
Dairy products	61.3	65.1	68.5	51.9	64.2	-21.6	74.5	+14.0	78.7	81.3
Meats	55.2	59.1	77.2	53.0	60.4	-15.1	81.0	+1.7	74.1	68.1
All commodities other than farm products and foods	70.2	55.3	81.9	55.3	80.4	-5.7	82.1	+2.1	82.5	83.9
Building materials	71.4	65.2	90.5	65.3	88.0	-5.9	90.9	+1.5	82.4	93.0
Chemicals and drugs	75.5	83.2	76.5	60.3	70.2	-11.7	77.3	+1.4	77.9	78.1
Fuel and lighting materials	70.3	77.5	73.1	70.9	78.2	-4.9	72.8	-1.5	73.4	72.8
Hides and leather products	72.9	104.6	95.0	104.7	91.9	-12.2	95.5	+7.2	102.7	103.7
Rubbers and skins	42.1	118.5	84.5	117.2	72.5	-37.3	97.4	+32.5	104.8	105.2
Textile products	64.9	70.3	69.7	78.3	65.7	-18.8	71.7	+7.5	75.4	78.0
Cotton goods	64.0	84.3	67.2	92.4	63.9	-31.0	70.4	+10.3	73.7	75.2
Silk and rayon	31.0	83.6	40.9	33.4	30.3	+10.2	43.4	+17.0	48.1	55.0
Woolens and worsteds	67.7	91.1	79.8	73.1	73.1	-10.2	54.0	+21.9	52.0	90.3
Metals and metal products	60.2	65.7	94.4	64.5	94.0	-5	94.8	+1.9	95.7	96.0
Iron and steel	79.4	98.2	95.3	90.7	93.9	-3	93.5	-1.4	95.9	98.1
Nonferrous metals	49.8	59.6	78.0	62.7	73.1	-10.0	84.7	+12.8	84.0	84.6
Houshold and office goods	75.1	89.7	80.3	83.4	85.4	-3.4	85.0	+1.4	87.8	88.5
Miscellaneous	64.4	77.8	74.6	70.0	73.9	-6.5	75.0	+3.7	77.2	77.4
OTHER INDEXES										
Cost of living (National Industrial Conference Board, 1923=100)	77.9	88.5	85.2	88.0	85.0	-3.4	85.9	+1.1	88.7	80.3
Prices received by farmers (U. S. Dept. of Agriculture, August 1909-July 1914=100)	63	121	92.0	129	91	-28.0	98	+7.7	97	96
Retail foods (U. S. Dept. of Labor, 1922-25=100)	68.2	56.1	77.0	53.5	76.7	-10.4	70.0	+3.0	78.1	73.8
Retail prices of department-store articles (Fairchild Index, Dec. 31, 1934=100)	75.8	95.1	89.9	94.7	80.1	-5.9	90.2	+1.2	91.3	92.0

<sup>1</sup> Simple averages of monthly indexes.

<sup>2</sup> Based on 613 price series in 1939, and on 784 in the earlier years shown.

Foodstuff prices, as a group, were about as strongly influenced by September developments as were the prices of industrial materials. Although the former started to decline before the end of that month, changes in the two groups were quite similar, as evidenced by figure 18. More significance attaches to a distinction between imported and domestic commodities; the greater price rise of imported items is indicated in figure 19. As has already been in part suggested, this disparity may be explained in terms of domestic buyers' expectations of higher shipping costs, dislocations in shipping service, and further limitations by foreign governments on exports of certain basic materials.

Drastic shifts in prices of industrial raw materials resulted in new relative standings of important price groups. Figure 20 shows the extent of recent divergence between the prices of raw and semifinished indus-

trial materials and those of finished goods. On the basis of the relative levels of these two groups of prices in 1934 the year 1937 had seen a greater increase in the level of raw-material prices than in those of finished goods; but this divergence disappeared by the end of the year, and in the first half of 1938 the index of raw-material prices fell below that for finished goods. From August 1938 to September 1939 the two indexes remained together at a practically unchanging level, but raw-material prices again rose more sharply in the latter part of 1939. At the same time, the upturn in the finished-goods index indicates the tendency for rising prices to become generalized.

A final divergence in price movements is to be found in a comparison of wholesale and retail prices. As is usually the case, retail prices failed to show the flexibility that characterized wholesale-price move-

ments in the 1937-39 period. Table 12 indicates that the National Industrial Conference Board composite index of the cost of living, which reflects the retail-price situation to some extent, averaged only 3 percent less in the first 6 months of 1939 than in the same part of 1937, whereas the Bureau of Labor Statistics combined index of wholesale commodity prices fell 12 percent. On the other hand, the September 1939 rise over

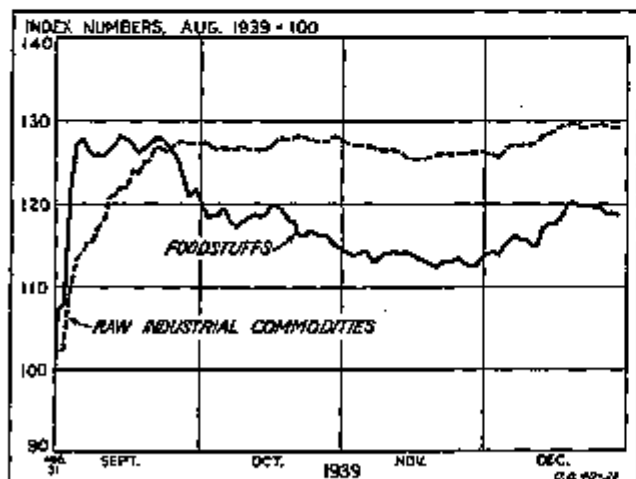


Figure 18.—Indexes of Spot Market Daily Prices of Foodstuffs and Raw Industrial Commodities, August 31-December 29, 1939 (U. S. Department of Labor).

**NOTE.**—The index of foodstuff prices is based on 12 items: Wheat, barley, corn, butter, tallow, hogs, steers, lard, sugar, coffee, cocoa beans, and cottonseed oil. The index of industrial raw commodity prices is based on 16 quotations (15 items): Flaxseed, shelled, rubber, hides, rosin, print cloth, silk, wool, hurlap, steel scrap (Chicago and Philadelphia), tin, copper, lead, zinc, and cotton.

the average for the first 6 months of the year amounted to 3.5 percent for wholesale prices and only 1 percent for the cost of living. Between the 1937 and 1939 periods the Fairchild index of department-store prices declined 6 percent, and then rose only 1 percent last September. In the wholesale-price classification, textiles, leather and its products, and housefurnishings are most comparable with the Fairchild indicator; and these groups showed declines from the 1937 period to the 1939 period of 15 percent, 12 percent, and 3 percent, respectively. Their September advances amounted to 7.5 percent, 7 percent, and 1 percent. Thus, with the exception of housefurnishings, the changes in wholesale prices were significantly larger in this comparison. The tendency toward inflexibility in both downward and upward movements of retail prices may be seen in the case of foodstuffs alone, where the average of prices during the first half of 1939 compared with the corresponding period of 1937, and the September 1939 average compared with that of the first half of the year, reveal movements in retail food prices about half as great as those for foods at wholesale.

#### Some Developments Among Individual Prices

**Iron and Steel.**—Quoted prices for finished steel for the most part showed customary stability in 1939, although some price weakness in May stimulated buying

at that time. In the last quarter, reductions from listed prices were withdrawn on most items. With operations at better than 90 percent of capacity and with many mills in no position to make delivery of sheets, strips, bars, wire, and tin plate for several months, sellers were in a position to insist on listed prices. Increases in export prices to the level of domestic prices also indicated the extent of a seller's market in steel. In addition, domestic prices on certain items were actually raised by some mills, notably on plates and bars.

With the sudden increase in steel production in September, pig-iron prices were advanced \$2 a ton, while Iron Age's composite scrap price rose \$2.50 a ton in a single week and approximately 45 percent within a month. Shortages of scrap steel were not in all cases actual physical shortages, but resulted in part from holding by manufacturers and dealers in a rising market. Higher prices for scrap brought some increase in the percentage of pig iron used, with a corresponding reduction in the proportion of scrap.

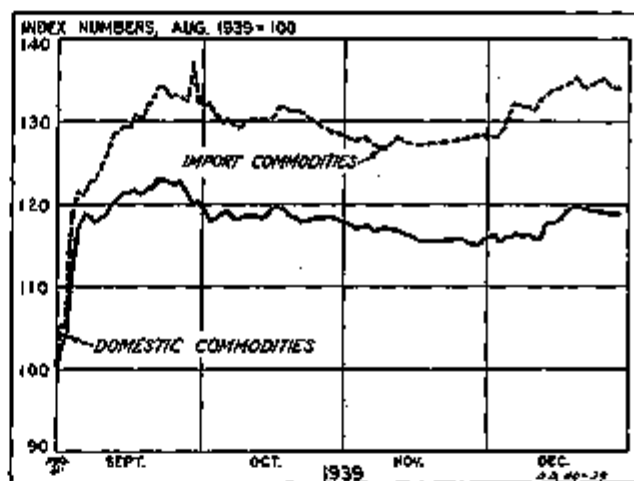


Figure 19.—Indexes of Spot Market Daily Prices of Import and Domestic Commodities, August 31-December 29, 1939 (U. S. Department of Labor).

**NOTE.**—The index of import commodity prices is based on 11 items: Flaxseed, sugar, coffee, cocoa beans, shelled, rubber, hides, silk, wool, hurlap, and tin. The index of domestic commodity prices is based on 17 quotations (16 items): wheat, barley, corn, butter, tallow, hogs, steers, lard, rosin, cottonseed oil, print cloth, steel scrap (Chicago and Philadelphia), copper, lead, zinc, and cotton.

As a calmer appraisal of the prospects came to prevail and dealers released amounts they had held during the rapid market rise, scrap prices receded quickly to about \$18 per gross ton at the year end—well above the low for the year of about \$14 in May.

**Tin.**—In the nonferrous-metals group the largest advance was recorded by the spot price of tin, which at about 49 cents a pound from June to August was higher than any monthly average in 1938, and which rose to nominal levels of over 70 cents a pound in September. Supplies in the market had been somewhat depleted after a 10-percent rise in deliveries in both July and August, and September demands could not be fully met even at greatly advanced prices. Large shipments fol-

lowed the raising of quotas by the Tin Committee, however, and the price dropped to 51 cents by the end of the year. A shortage of supply at the prevailing price appears quite unlikely.

**Rubber.**—Spot-rubber prices fluctuated around 16 cents a pound early in 1939, but from May through August they showed a slight but persistent rising tendency, reaching almost 17 cents at the end of August. Heavy demand early in September shot prices to 25 cents (largely nominal), a peak from which they dropped fairly quickly. By the end of the month they were at 21 cents. For the remainder of the year they fluctuated around 20½ cents, except for the sharp decline to about 19 cents at the end of December.

The pre-September rising tendency reflected declining stocks in the United States. August 1939 stocks were 27 percent less than those of January; average stocks for this 8-month period were about equal to the average for 1937, which was 29 percent less than average quantities on hand in 1938. September end-of-the-month stocks were the lowest since March 1930. Production of tire casings and inner tubes increased rapidly during the last half of 1938; and output during some months of 1939 was double the monthly average for the first half of the previous year.

Gradual reduction of stocks accounts for the strengthening of rubber prices before September and for the extent of the advance in September. Subsequent declines were made possible by the raising of export quotas in producing countries.

**Silk.**—Among textile prices, that of raw silk had the most spectacular rise in 1939. Although the larger part of the rise for the year came after September 1, a strong upward movement was in progress from January through May. For the year as a whole, the high of daily prices soared from \$1.90 per pound in early January to \$4.65 near the end of December, a peak not hitherto reached since the early months of 1930. Visible stocks, both in total and in United States warehouses, declined rapidly during the first 6 months of the year. The market shortage of silk has been explained in terms of rising costs of production and increased home consumption in Japan, but the fact that the 1939 cocoon crop was substantially higher than that of 1938 suggests that other factors, notably speculative holding in Japan, have played a part. The advance of raw-silk prices has been held by the trade to necessitate increased prices for full-fashioned hosiery from levels that permitted record sales in 1939 and may cause some shift to rayon and to silk and cotton combinations.

**Wool.**—Wool consumption was quite high in 1939, approximately 400 million pounds, or about 40 percent in excess of 1938 consumption. Wool prices changed little until September, and then a series of quick advances carried them 50 percent above those prevailing earlier in the year. Acquisition by the British Govern-

ment of the wool clips of Australia and New Zealand caused some uncertainty as to the amounts that would be made available to the United States in the near future; recent reports indicate that tentative plans for the release of 13,500,000 pounds (scoured basis) have been made.

**Cotton.**—The 10-market price of raw cotton rose from around 8½ cents a pound in the early months of the year to about 11 cents in the middle of December, the average for the year being about a cent higher than that for 1938. Huge stocks of cotton owned or held in loan by the Federal Government might have been expected to prevent a price rise of such a magnitude; their failure to do so is explained by the fact that most of the carry-over cotton could be made available only at materially higher prices—sufficient to cover accumulated charges as well as the original purchase price, in the case of Government-owned cotton, and the amount of note, in the case of loan cotton. Accumu-

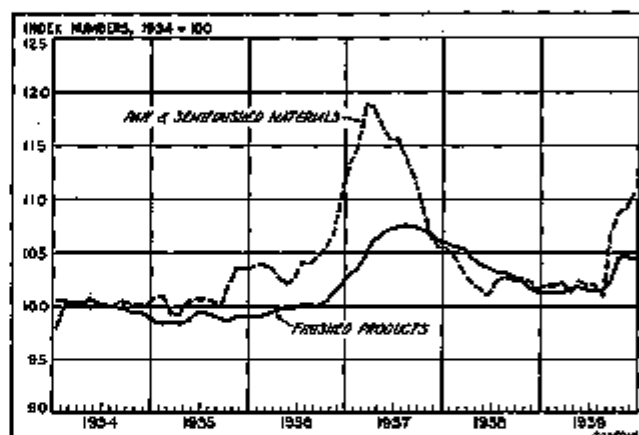


Figure 20.—Indexes of Wholesale Prices of Industrial Commodities, 1934-39.

NOTE.—Computed by the Board of Governors of the Federal Reserve System from United States Department of Labor data; all foods and feeds, both raw and processed, are omitted.

lated charges were, for the most part, greater on the Government-owned cotton; hence the old cotton, that the rise of prices in the last third of 1939 made it profitable to market, was chiefly cotton that had been held against loans to growers. During the last quarter of 1939, 164,489 bales of 1938 loan cotton were actually released, but requests for a much greater amount were received.

From the middle of November to the middle of December the spread between prices in domestic markets and prices at Liverpool widened; in the case of American Middling Fair Staple the spread of Liverpool over New Orleans advanced from 1.94 cents per pound on November 13 to 3.43 cents per pound on December 13. The Department of Agriculture attributed the increased spread to a rise in transportation costs of about 1 cent a pound, and also in part to the reduction in the export payment rate, announced by the Federal Government, from 1.50 cents to 0.20 cent a pound. The spread narrowed somewhat on December 15, but was 3.39 cents on December 22.

Estimates by the Department of Agriculture as of the end of the year looked to an increase of 300,000 bales in the American cotton supply to a total of 25,700,000 bales in 1940, but this is expected to be more than offset by a decrease of more than 1,000,000 bales in the supply of foreign cotton. Some increase in domestic consumption is anticipated, and this, together with favorable prospects for an increase in cotton exports, may result in a lessening of the carry-over of American cotton on August 1, 1940, from the 14,000,000-bale total of last year. It was estimated late in November that world consumption in 1939-40 would be about equal to this season's world output, leaving a world carry-over in August not materially less than that of a year previous. By the end of 1939, however, 1940 consumption prospects, hence those of carry-over and prices, had become more uncertain. The restriction of civilian consumption in the warring countries must be set off against potential increases in the demand for consumption goods arising out of particular war needs.

**Wheat and corn.**—Leading farm products tended to sag in price for the first 8 months of 1939, with the exception of a temporary strengthening in wheat in April and May as a result of a protracted dry spell; wheat prices turned down again after rainfall, when it became clear that not only was the damage to winter wheat less than previously expected, but also that the outlook for spring wheat was exceptionally good. Hence, by midsummer, prices of leading farm products were rather low, despite the fact that much wheat, for example, was being taken off the market on Federal Government loan, and despite continual war scares from Europe.

Several factors contributed to the drastic upward spurt of farm prices in September. Of chief importance was the expectation of large buying from abroad at an early date, which colored the thinking of speculators and domestic consumers alike.

Some recession from the September peak for wheat took place, but a rapid new advance occurred in December, carrying spot prices to highs of \$1.10 a bushel and more. The December upturn is attributable to the drought situation that developed in the final quarter of the year, giving rise to predictions of one of the lowest winter wheat crops on record. Heavy snows in late December in the West and Southwest were thought to have arrived too late, in view of considerable deterioration that had already occurred. Domestic wheat production for 1940 was estimated at the close of last year at around 600,000,000 bushels, 60,000,000 less than estimated domestic consumption. An additional factor tending to strengthen wheat prices was the outlook for an Argentina yield of only 150,000,000 bushels or less, as compared with last year's 336,000,000 bushels.

The domestic carry-over on July 1 next may be 300,000,000 bushels, an increase of 46,000,000 over that

of July 1, 1939, resulting from the large 1939 crop and the probability of diminished exports in the coming months, especially because of the suspension of the export subsidy program for wheat on December 29, as well as rising shipping costs. The excess of estimated disappearance over production in 1940 indicates, however, a substantially reduced carry-over for 1941, although it will probably still exceed 200,000,000 bushels. Continued large stocks of surplus wheat overhanging both the world market and the domestic market will necessarily exercise a restraining influence on prices for some time to come.

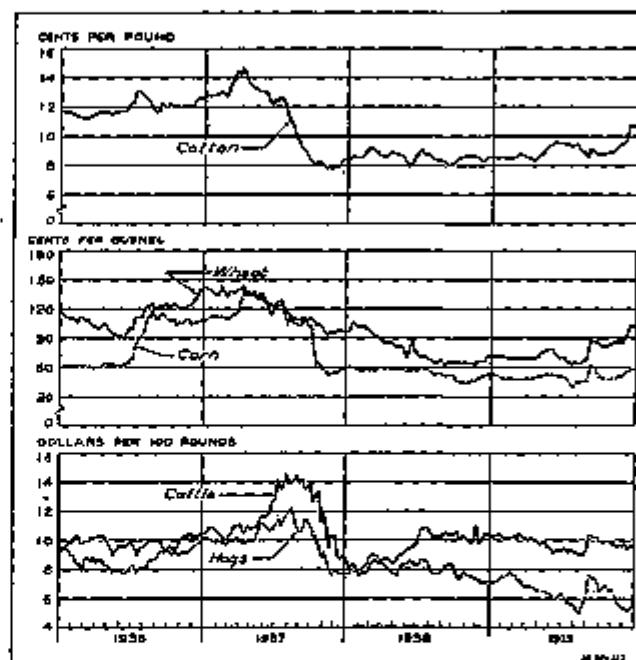


Figure 21.—Weekly Average Market Prices of Important Farm Products, 1934-39 (U. S. Department of Agriculture).

NOTE.—Prices are as follows: Cotton, Middling, 1/8-inch, average spot price at 10 markets; wheat, No. 2, Hard Winter, weighted average price of reported cash sales at Kansas City; corn, No. 3, Yellow, weighted average price of reported cash sales at Chicago; beef steers from the Corn Belt, weighted average price of all grades sold out of first hands at Chicago for slaughter; hogs, weighted average price, packer and shipper purchases, at 7 markets.

In July, corn prices reached a 6-year low, in part because farmers, confronted with a shortage of crib space, were struggling to make room for the new crop by unloading the corn they had in a market that was already depressed. There was a recovery by the end of July to 45 cents a bushel (No. 3 yellow), where the price remained with little fluctuation until the meteoric September rise to about 85 cents. A recession almost to the 45-cent level occurred at the end of the month and in early October. A renewed rise in late November and December, resulting from the strong upward trend in wheat plus some increase in corn exports, brought the price almost to 80 cents by the end of the year.

**Cattle and hogs.**—Hog and cattle prices moved sharply downward during the first 8 months of the year. Large feed crops in the immediately preceding years led to

increased production and, in the case of hogs, to increased slaughtering; the result being an average price of \$5 a hundred pounds for hogs in seven markets in the middle of August, the lowest since 1934, compared with \$7.80 in February. The average price of beef steers at Chicago went a little below \$9 a hundred pounds in August in contrast to \$10.40 early in the year. The large herds that had exerted so depressing an influence on livestock prices earlier in the year were sufficient to pull prices down from the peaks to which they jumped in September—in the case of hogs, back to August figures after speculative activity diminished.

**Sugar.**—Prior to September, visible United States stocks of sugar were substantially above those for 1938 and were even further above the 1935-37 average. Excess stocks were due chiefly to a high level of output of beet sugar added to large existing supplies from other areas. Owing to the volume of stocks, prices were somewhat depressed during the first 8 months of the year, duty-free raw sugar fluctuating between 2½ and 3 cents per pound. Apparently because sugar became a rationed commodity during the war of 1914-18, heavy buying took place last September. As a result of the ensuing rise of raw-sugar prices to 3.85 cents per pound and refined sugar prices to \$5.75 per 100 pounds, the President suspended quota restrictions. The price of raw immediately fell and was 2.80 cents at the close of the year. During the period of about 3½ months while the quotas were inoperative, producers sold eagerly in order to avail themselves of an opportunity to dispose of their heavy stocks without thereby cutting into 1940 quotas.

Announcement of the restoration of marketing and import quotas as of January 1 was made by the President on December 26. Subsequently the Department of Agriculture released its initial estimate that domestic sugar consumption in 1940 would be 6,725,100 short tons, raw value. The trade seems to believe such a volume of production will be sufficient, in view of the widespread increase in invisible stocks during the buying wave that followed the declaration of war in Europe. During the period of suspended quotas, the duty on Cuban sugar automatically reverted to 1½ cents a pound, but a ½-cent duty became operative on December 27, after the President's proclamation announcing quota restoration.

## Domestic Banking and Finance

### Banking and Credit

The principal developments in domestic banking and finance in 1939 were closely connected with the outbreak of the European war and with the prolonged international tension which preceded it. The growing certainty that a major conflict was imminent led to a wholesale transfer of funds to this country for safe-keeping or for future use by foreign governments and

was responsible also in some degree for the continued large balance of commodity exports from the United States. (See p. 45.) The counterpart of these two factors was an addition to monetary gold stocks from foreign sources during the year which exceeded \$3,000,000,000. The inflow of gold from abroad, together with output from domestic mines, raised gold stocks from \$14,512,000,000 at the end of 1938 to \$17,643,000,000 at the end of 1939, an increase of more than a fifth in holdings already greatly increased by the heavy inward movement during the period since the beginning of 1934. This is shown in figure 22.

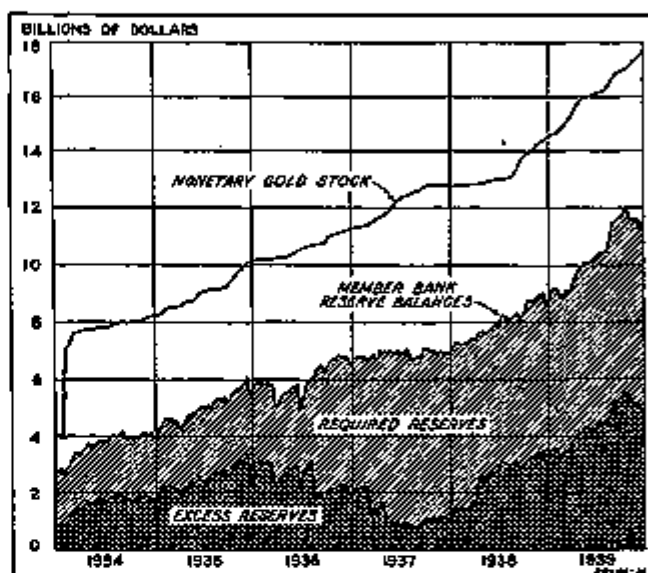


Figure 22.—Monetary Gold Stock and Member Bank Reserves, 1934-39 (Monetary Gold Stock, U. S. Treasury Department; Member Bank Reserves, Board of Governors of the Federal Reserve System).

NOTE.—Data are for Wednesday of each week.

The additions to monetary gold during 1939 resulted directly in the creation of additional bank reserves, on the one hand, and in new bank deposits, on the other. Insofar as the reserve position of the banks was concerned, the effect of the gold movement was accentuated by other factors tending to increase the volume of funds at the disposal of the banking system. Chief among these was the net disbursement by the Treasury of approximately \$600,000,000 from its cash and from its deposits with Federal Reserve banks. (See table 13.) An increase of about \$750,000,000 in the amount of money in circulation absorbed a part of the resources arising from gold inflow and from Treasury disbursements, but the resulting increase in member-bank reserves during 1939 was \$2,900,000,000. Nonmember institutions increased their deposits with Federal Reserve banks by more than \$200,000,000.

These trends in basic credit and banking conditions were practically unbroken throughout 1939, largely because the inflow of gold, the predominant element in the situation, was virtually uninterrupted. In September, at the time of the sharp break in the prices of government bonds, the Federal Reserve banks increased

their holdings of government bonds and notes by about \$475,000,000 and thus temporarily accentuated the increase in the reserves of banks. At the end of the year, however, the amount of Federal Reserve bank credit outstanding was slightly less than it was at the end of 1938.

Table 13.—Factors Affecting Total and Excess Reserves of Member Banks, 1939

[Millions of dollars]			
Item	End of 1938	End of 1939	Net change
<b>Factors of increase:</b>			
Monetary gold stock	14,512	17,643	3,131
Treasury cash	2,706	2,450	256
Treasury deposits with Federal Reserve banks	923	934	11
Treasury currency outstanding	2,708	2,983	275
Other factors	260	261	1
<b>Total</b>			<b>3,894</b>
<b>Factors of decrease:</b>			
Federal Reserve bank credit outstanding	2,601	2,603	2
Money in circulation	6,836	7,593	757
Nonmember deposits	441	653	212
<b>Total</b>			<b>942</b>
<b>Member-bank reserve balances</b>	<b>8,734</b>	<b>11,872</b>	<b>3,138</b>
<b>Required reserves</b>	<b>2,519</b>	<b>6,464</b>	<b>3,945</b>
<b>Excess reserves</b>	<b>2,903</b>	<b>6,208</b>	<b>3,305</b>

Source: Federal Reserve Bulletin.

#### Excess Reserves.

The enlargement of banking reserves in 1939 was accompanied by a further accumulation of excess reserves in the banking system. (See fig. 22.) The surplus reserves of member banks rose from \$3,200,000,000 on December 31, 1938, to \$5,200,000,000 on December 30, 1939 (the total had reached \$5,500,000,000 in October), despite the fact that required reserves against deposit liabilities were higher by \$900,000,000 at the close of the year. By comparison with August 1937, after the Federal Reserve Board had raised reserve requirements on March 1 and May 1 to the full extent permissible under existing legislation, the excess reserves of member banks had increased more than sevenfold—partly, however, as a consequence of a reduction in requirements in April 1938. At present levels, the reserves of member banks above legal requirements place them largely beyond the control of the monetary authorities through the use of available instruments of credit. The further use by the Board of its power to raise required reserves would absorb less than a billion of the surplus, and the sale of the Reserve banks' entire holdings of Government securities would take up two and a half billion, leaving well over a billion and a half of excess reserves still in the possession of member banks. Action by the Treasury to reduce bank reserves or to sterilize gold would involve an increase in the Federal debt, which is already near its statutory limit, and, in the case of sterilization procedures, would be effective, of course, only in respect of future gold acquisitions.

If the temporary increase in holdings of Government obligations by the Federal Reserve banks in September is excepted, no official measures have been taken directly

to influence the reserve position of banks or the general conditions underlying the money market since the easing of credit early in 1938. In February 1938 the Treasury abandoned, in effect, its gold sterilization policy and proceeded in April to desterilize an accumulation of approximately \$1,400,000,000 of gold in its inactive account. Desterilization was accomplished through the deposit of gold certificates with the Federal Reserve banks, and an increase in bank reserves was produced by drawing down the resulting Treasury deposits through the retirement of Treasury bills with cash. The reduction in the reserve requirements on all classes of deposits for all member banks immediately followed this action by the Treasury. Earlier, in August and September 1937, the discount rates of the Federal Reserve banks had been lowered—to 1 percent at New York and to  $1\frac{1}{2}$  percent in other districts.

#### Loans and Investments of Member Banks.

The investments of banks in the United States, as indicated by weekly reports from member banks in 101 leading cities, rose gradually during 1939 by virtue of further purchases of government obligations. Their loans, after showing a declining tendency up to the middle of the year, increased slowly until the beginning of the war in Europe, and then more rapidly as the rise in industrial production and the building up of inventories created new demands for bank accommodation. The rise in the total loans of reporting member banks for the year as a whole, approximately \$250,000,000, was relatively small; but the increase during the second half of the year was nearly \$600,000,000. (See table 14.) The expansion in loans to commerce, industry, and agriculture was primarily responsible for the increase in total loans during 1939. Other loans, especially loans connected with the marketing and trading of securities, were reduced.

Table 14.—Loans and Investments of Weekly Reporting Member Banks on Selected Dates, 1938-39

[Millions of dollars]					
Item	End of 1938	End of June 1939	End of 1939	Net change, 1939	Net change, July-December 1939
<b>Commercial, industrial, and agricultural loans</b>	<b>3,643</b>	<b>3,833</b>	<b>4,353</b>	<b>+510</b>	<b>+420</b>
Loans for purchasing and carrying securities	1,406	1,161	1,204	-204	+13
Other loans	3,179	3,065	3,117	-92	+52
<b>Total loans</b>	<b>8,430</b>	<b>8,060</b>	<b>8,674</b>	<b>+244</b>	<b>+485</b>
<b>Investments in U. S. Government obligations</b>	<b>9,906</b>	<b>10,571</b>	<b>11,115</b>	<b>+1,117</b>	<b>+544</b>
Other investments	3,221	3,231	3,298	+77	+77
<b>Total investments</b>	<b>13,219</b>	<b>13,802</b>	<b>14,413</b>	<b>+1,194</b>	<b>+621</b>
<b>Total loans and investments</b>	<b>21,649</b>	<b>21,862</b>	<b>23,087</b>	<b>+1,433</b>	<b>+1,106</b>

Source: Federal Reserve Bulletin.

The combined loans and investments of reporting member banks at the close of 1939 were again at the high level reached at the end of 1936, and investments

alone were above the previous maximum, attained in that year. By comparison with 1929, loans were approximately half of those then outstanding; whereas investments, largely increased holdings of government securities, were considerably more than twice as large, as may be seen in figure 23. The combined aggregates were of approximately the same magnitude. Since 1932, the primary change in bank portfolios has been the steady growth in holdings of the direct and fully guaranteed obligations of the Government, which comprised nearly 50 percent of their total loans and investments at the end of 1939, as compared with 28 percent at the end of 1932 and with 11 percent at the end of 1929. The volume of loans, although naturally responsive to fluctuations in business activity, remained at a level

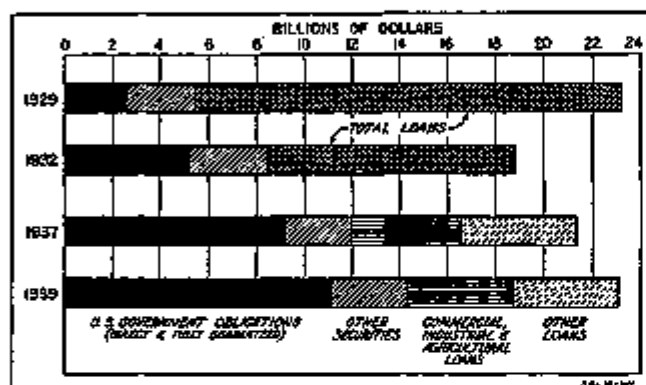


Figure 23.—Loans and Investments of Reporting Member Banks in 161 Leading Cities, 1929, 1932, 1937, and 1939 (Board of Governors of the Federal Reserve System).

NOTE.—Data are for the Wednesday nearest the end of the year. Due to changes in classification, comparable data for "Commercial, Industrial, and Agricultural" loans are not available separately for 1929 and 1932; therefore "total loans" for these years are shown in this chart.

apparently permanently reduced from that of the 1920's and not much above the lowest levels of the past decade.

#### Deposit and Money Supplies.

The increase in bank loans and investments during 1939, coupled with the additions to monetary gold, served to raise the demand deposits of individuals and business firms to a record figure. (Fig. 24.) For reporting member banks, the rise during the year was \$2,600,000,000 and, for all banks in the United States, more than \$4,000,000,000. There was at the same time, however, a further fall in the rate of turn-over of deposits at commercial banks. The rise in the amount of money in circulation during the year, which carried the total well above the level reached at the peak of currency hoarding in 1933, was only in part the reflection of a greater need for hand-to-hand currency. As in other recent years, special circumstances, including exports to Europe for hoarding and speculation, an accumulation of individual savings in the form of currency, the shift from bank deposits to currency as a means of making payments, and increased holdings of idle cash by banks must account for much of the additional supply of

money outside the Treasury. Considered in relation to the requirements of industry and trade, there was during 1939 a growing redundancy of money in the hands of the public as well as of reserves in the possession of banks.

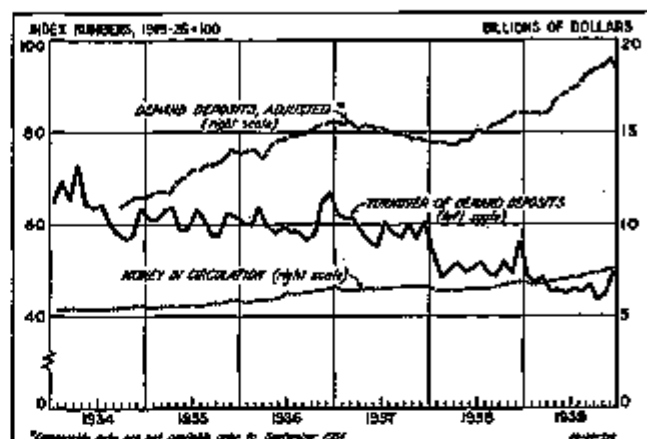


Figure 24.—Demand Deposits, Adjusted, and Annual Rate of Turn-Over of Demand Deposits (Adjusted for Seasonal Variations) in Reporting Member Banks in 161 Leading Cities, and Money in Circulation, 1934-39 (Demand Deposits, Adjusted, Board of Governors of the Federal Reserve System; Annual Rate of Turn-Over of Demand Deposits, Federal Reserve Bank of New York; and Money in Circulation, U. S. Treasury Department).

NOTE.—Data for "Demand Deposits, Adjusted" represent deposits other than inter-bank deposits and United States Government deposits, less cash items reported as on hand or in process of collection. Data for "Annual Rate of Turn-Over of Demand Deposits" are based upon the relation between debits to individual accounts and demand deposits in reporting member banks in 161 leading cities. Figures for "Demand Deposits, Adjusted" are for the Wednesday nearest the end of each month, and data for "Money in Circulation" are as of the end of each month. The base period for the indexes of "Annual Rate of Turn-Over of Demand Deposits" is a daily average for the years 1918 through 1925.

#### Interest Rates

Except for some brief rises in September, the general structure of interest rates in the United States was virtually unchanged during 1939 and continued to reflect the extreme ease in the money market induced by the plethora of funds available for investment. Open market rates in New York on 4 to 6 month commercial paper ruled at  $\frac{1}{8}$  to  $\frac{1}{4}$  percent except during the period from the middle of September to the middle of November, when the range was  $\frac{1}{4}$  to  $\frac{1}{2}$  percent. Rates on 90-day bankers' acceptances, 90-day stock-exchange time loans, and stock-exchange call loans were unchanged at  $\frac{1}{8}$  percent,  $1\frac{1}{4}$  percent, and 1 percent, respectively. These low quotations were the culmination of an almost continuous decline in the cost of short-term money since 1929. Restrictive gold and reserve policies put into effect in 1936 and the first half of 1937 resulted in some hardening of rates, but the reversal of these policies with the downturn in business activity in the latter half of 1937 restored a condition of extreme ease in the money market.

Dealers' quotations for 91-day Treasury bills, reported at 0.03 percent throughout the first half of 1939, rose to 0.20 percent in September and then fell to 0.04 percent in December; the yield on new issues

at the opening and close of the year was negligible or nil, and reached only 0.159 percent at a maximum in September. The average yield on 3-year to 5-year Treasury notes was 0.68 percent at the beginning of January and 0.47 percent at the end of December,

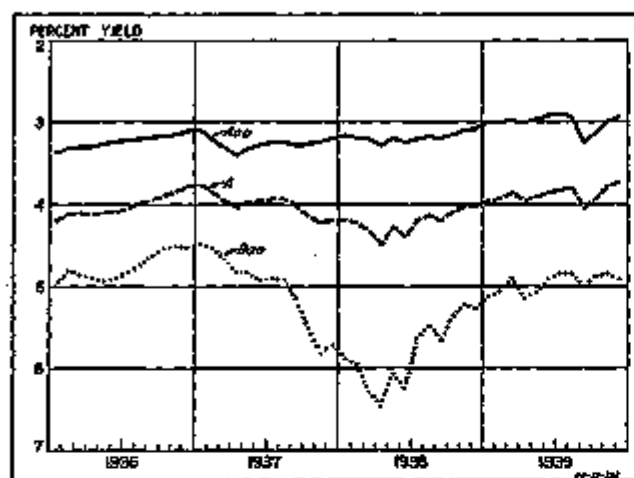


Figure 25.—Yield of Corporate Bonds, by Ratings, 1936-39 (Moody's Investors Service).

Note.—In the rating classification followed by Moody's Investors Service, Aaa indicates bonds which are and may be expected to remain the most conservative type of investment. Such bonds will tend to fluctuate in price with fluctuations of the prevailing long-term interest rates. Bonds rated A have distinct investment qualities, but do not have the elements of strength which would necessarily prevent their intrinsic worth from being affected by some special development; while those rated Baa have definitely less of an investment and more of a speculative character. Each group includes 25 bonds.

with a high of 1.13 percent in September. Corporate bond yields, along with yields on Government bonds, showed a generally declining tendency through the middle of the year, rose sharply upon the outbreak of the war, and turned downward again in October. (See fig. 25.) The yield on low-grade corporate bonds increased abruptly, as stock prices fell, in March and early April; whereas the rate of return on high-grade issues showed only a slight upward tendency. In September, on the other hand, the rise was much more pronounced and endured longer in the case of high-grade than in the case of low-grade bonds. At the end of the year, the spread between yields on the two classes of obligations, although narrowed as compared with the interval at the end of 1938 and nearly halved as compared with that in April 1938, was considerably wider than at other times during the year, particularly in September.

### Security Markets

Although the security exchanges reacted at times to international developments—as, for example, during the dismemberment of Czechoslovakia in March—industrial stock prices in the first three quarters of 1939 followed in general the course of business activity at home. The improvement in the market for this class of equities which accompanied the upswing in industrial production and corporate profits during the latter half of 1938 was followed by a moderate recession as business

activity slackened toward the end of that year. (See fig. 26.) The weakness in industrial shares extended into the early months of 1939 and became marked in April. (See table 15.) After April, an irregular rise set in—with renewed weakness appearing, however, in August. The beginning of hostilities in Europe set off

Table 15.—Common Stock Prices on Selected Dates, 1938-39.

Item	1938-1939				
	Dec. 28, 1938	Apr. 12, 1939	Aug. 23, 1939	Oct. 25, 1939	Dec. 27, 1939
200 Industrials.....	111.3	92.8	95.0	114.0	107.4
40 Utilities.....	77.5	77.8	82.6	87.5	86.6
20 Railroads.....	80.1	78.6	78.3	83.5	82.8
420 Stocks.....	82.5	79.3	81.6	97.2	91.3

Source: Standard Statistics Co., Inc.

a brief buying wave based obviously upon widespread expectations of sharply improving business and of a sustained rise in commodity prices. After September, prices fluctuated within narrow limits around a level roughly 10 percent above averages for August, with, on the whole, a slight downward tendency despite the fact that industrial production and corporate profits continued to rise. It was apparent from these developments in the market for industrial shares that a more sober view of business prospects, as affected by war-time circumstances, soon came to prevail. At the end of 1939, representative averages were at approximately the level of December 1938, but much below the peak reached in early 1937.

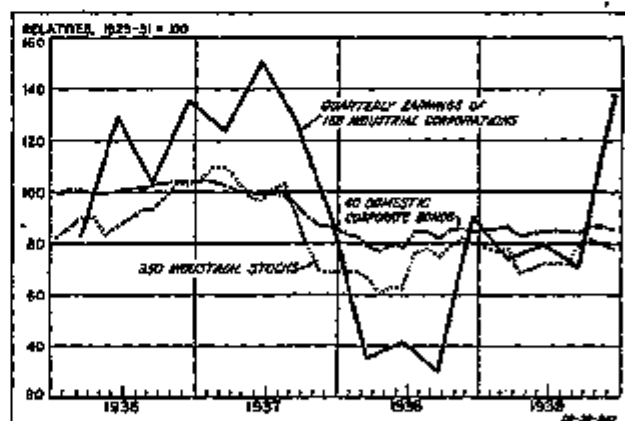


Figure 26.—Indexes of Industrial Stock Prices, Domestic Corporate Bond Prices, and Quarterly Earnings of Industrial Corporations, 1936-39. (Basic figures for stock and bond prices are from Standard Statistics Company, Inc., and quarterly earnings data are from the Federal Reserve Bank of New York, except for the fourth quarter of 1939, which was estimated by the U. S. Department of Commerce.)

The prices of utility shares followed a rising trend throughout 1939, with only brief recessions in April and September. (See fig. 27.) Railroad stocks, which had remained at a low level after April while the market for industrials and utilities was showing general improvement, rose in September and October to the highest quotations since 1937 in response to the sharp increase in car loadings and the prospects for substantial net earnings by the railroads during those months.

In the bond market, the prices of all classes of obligations rose during the early months of the year, weakened in April along with stock prices, tended upward through July, and then, with the exception of low-grade issues,

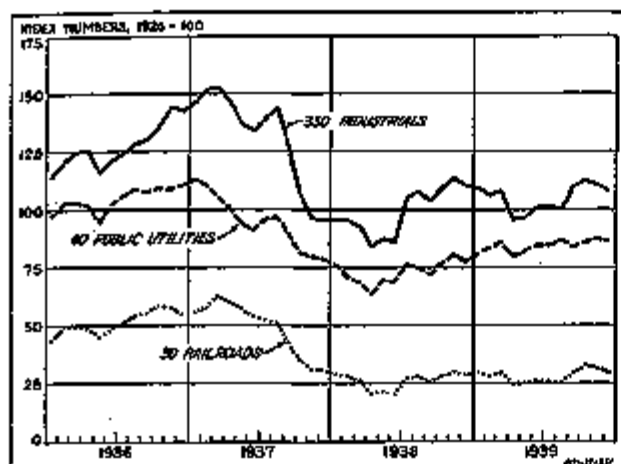


Figure 27.—Movement of Stock Prices, by Major Groups, 1936-39 (Standard Statistics Company, Inc.).

broke sharply in September. At the time of the September break in corporate bond prices, occasioned apparently by expectations of a hardening of interest rates and of more attractive uses for investment funds, an abrupt decline in long-term government bond prices led to heavy purchases by the Federal Reserve System as a means of maintaining an orderly market. By the end of December, government bonds had recovered most, and corporate bonds all, of their earlier losses.

#### New Security Issues.

The volume of publicly announced corporate security issues for obtaining new capital in 1939, given in figure 28, was the smallest since 1935. These offerings totaled

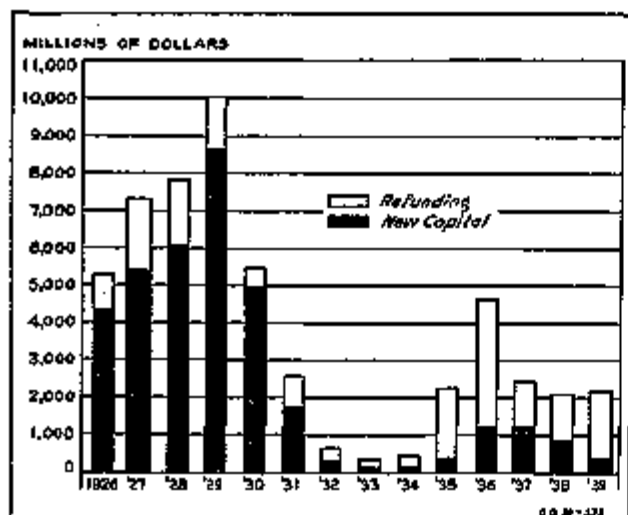


Figure 28.—Total Corporate Capital Flotations Publicly Announced, 1926-39 (Commercial and Financial Chronicle).

less than \$400,000,000, as compared with \$900,000,000 in 1938 and with \$1,200,000,000 in each of the years

1937 and 1936. The aggregate of refunding issues, on the other hand, as a result of low rates of interest and favorable market conditions, was relatively high. The low volume of new security issues, while reflecting the reduced rate of capital formation, exaggerates the decline over the past decade in expenditures for new durable producers' goods. It is well known that the proportion of new capital financed by publicly announced capital issues is much lower now than a decade ago.

## Federal Financial Operations

Both the receipts and the expenditures of the Federal Government in 1939 were directly influenced by the trend of national income and business activity. The decline of individual and corporate incomes, which began in the latter part of 1937 and continued until the middle of 1938, caused a reduction in Federal tax revenues during 1939. At the same time, the expansion of the farm program and the adoption, in the spring of 1938, of a policy designed to stop the receding tide of business were among the factors which resulted in an expansion of Treasury outlays. The net result was that the excess of actual disbursements over receipts increased by 1,300 million dollars above those of the preceding year. Despite this development, however, the Treasury borrowed on balance only 100 million dollars more from the public than it had in 1938, and the net volume of interest-bearing securities which it sold to the public in marketable form (that is, exclusive of U. S. savings bonds) was actually 240 million dollars smaller than in 1938.

#### Treasury Expenditures.

It will be recalled that in April 1938 a move toward enlarged relief and public-works outlays was inaugurated as part of a program designed to reverse the downward movement of business activity which was then in progress. The expansion of expenditures under this policy began immediately and continued into 1939, Federal outlays reaching their peak in the second quarter of the year, as may be seen in table 16. Outlays under the WPA, which is the most flexible of the major programs and which had been almost halved between the end of 1936 and the autumn of 1937, were the chief means of putting the policy into immediate effect. From a figure of 353 million dollars in the first quarter of 1938 these outlays rose to a high point of 621 million in the last quarter of the year. During 1939, however, they declined steadily, almost to the early 1938 figures. As a result, WPA expenditures during 1939 were less than in the previous year by 170 million dollars. In addition, expenditures of the Civilian Conservation Corps declined somewhat, bringing the total expenditures under work-relief programs to a figure about 200 million dollars below 1938.

While the major part of WPA programs has been financed with Federal funds, from 15 to 30 percent of the total expenditures on projects operated by WPA have been contributed by the sponsors. The sponsors' contribution has gradually increased—from 334 million dollars in 1937 to 438 million in 1938 and to roughly 500 million in 1939. In terms of employment, these dollar figures represent a reduction from the WPA all-time high of 3.2 million workers in the autumn of 1938 to 1.6 million in the autumn of 1939. During 1937, WPA provided employment for about 20 percent of the average number of estimated unemployed; in 1938 this rose to 23 percent, and was again reduced in 1939 to 20 percent.

In contrast with the immediate expansion of WPA outlays, actual expenditures under the public-works program increased more slowly, reaching a peak in the first half of 1939. As a result of the expansion, total disbursements on public works of various sorts in 1939 exceeded those made in 1938 by 250 million dollars.

Outstanding among Federal activities was the increase of approximately 400 million dollars, or nearly 50 percent, in expenditures under the agricultural programs. These outlays were at their height in the second and fourth quarters of the year. The increased outlay to farmers in 1939 was largely due to payments made under provisions of the Price Adjustment Act of 1938. This act appropriated 212 million dollars for parity payments to producers of wheat, cotton, corn, tobacco, and rice who participated in the acreage restriction and conservation features of the act. In addition, some increase in payments represented a wider participation in the Agricultural Conservation Program during 1939.

The national-defense expenditures have increased quarter by quarter throughout 1939 and probably will

continue to expand for some time. Their growth continues a trend which has been in progress since 1934 and is the outstanding feature of central government budgets all over the world. In 1939 these outlays amounted to nearly 1,300 million dollars, as compared with slightly more than 1,100 million dollars in 1938. Of the increase, about 54 percent went to the Navy and 46 percent to the Army. In addition to these changes, there was an expansion of departmental outlays in 1939. On the basis of new classifications used by the Treasury (shown in footnote to table 16) these expenditures increased from 715 million dollars to 805 million.<sup>1</sup>

These and other actual outlays (including the budgeted expenditures of the Reconstruction Finance Corporation and Commodity Credit Corporation, which are omitted from table 16) totaled 8,790 million dollars in 1939, as compared with 7,880 million in 1938. In addition, the Treasury credited the Old-Age Reserve and Railroad Retirement Accounts with about 200 million dollars more than in 1938. These charges, as well as debt retirement, are included in budget expenditures and thereby raise total budget expenditures for 1939 to 9,510 million dollars from 8,490 million in 1938.

If the various budget outlays are considered as percentages of the total (excluding transfers to trust accounts and debt retirement), certain striking changes appear in the past few years. As figure 29 shows, work programs and relief accounted for less than one-quarter of the total, as compared with one-third in 1936. Agricultural programs increased from less than 8 percent in 1936 to nearly 14 percent in 1939. National-

<sup>1</sup> It will be seen that these figures run higher than those shown in the body of table 16, whereas expenditures for public works are lower in the footnote figures than in the table itself. Certain expenditures formerly included under public works are now classified as "departmental." This shift in classification should be borne in mind when Treasury data are used.

Table 16.—Major Types of Budget Expenditures,<sup>1</sup> 1934-39

(Millions of dollars)

Major category	1935, total	1937, total	1938					1939				
			First quarter	Second quarter	Third quarter	Fourth quarter	Total	First quarter	Second quarter	Third quarter	Fourth quarter	Total
National defense <sup>2</sup>	980	985	260	275	285	290	1,110	290	305	335	300	1,230
Public works	1,185	1,065	190	195	240	300	915	290	290	275	275	1,130
Work programs and relief	2,470	1,890	435	545	640	590	2,210	615	575	480	440	2,110
Retirements, pensions, and assistance	585	535	215	225	225	230	895	220	220	285	255	980
Agricultural programs	375	735	170	255	165	230	810	290	365	210	300	1,205
Departmental <sup>3</sup>	475	545	140	140	150	165	625	175	180	210	210	775
Other	215	215	45	90	55	15	205	30	30	65	30	155
Interest	795	805	185	210	175	250	820	165	155	185	270	675
Debt retirement	120	90	20	5	15	10	50	10	20	10	10	50
Transfers to trust accounts	1,775	1,280	170	90	180	230	670	165	160	235	165	725
Total expenditures	9,275	8,395	1,525	2,065	2,190	2,490	8,400	2,240	2,455	2,330	2,340	9,345
Total, excluding debt retirement and transfers to trust accounts	7,880	7,115	1,635	2,020	2,065	2,190	7,760	2,075	2,275	2,015	2,165	8,530

<sup>1</sup> General and special accounts, basis of daily statement of U. S. Treasury. Figures rounded to 5 millions. Excludes budget transactions to account of Reconstruction Finance Corporation and Commodity Credit Corporation.

<sup>2</sup> Includes Panama Canal and items formerly classified under "Public works—national defense" in the daily Treasury statement.

<sup>3</sup> In the second half of 1939 certain expenditures, classified under "Public works" in previous periods, are classified under "Departmental," in accordance with revisions in the daily Treasury statement. A classification on this new basis for all of 1938 and 1939 gives the following approximate figures:

	Public Works	Departmental
1938:		
January-June	325	325
July-December	480	390
1939:		
January-June	305	490
July-December	550	495

<sup>4</sup> Includes general expenses of Rural Electrification Administration.

<sup>5</sup> Includes adjusted service certificates.

defense expenditures have constituted a slowly but steadily rising percentage of the total; while the relative importance in the budget of interest and retirement, pensions and assistance, after increasing in 1937, has declined. Departmental expenditures, as now defined,

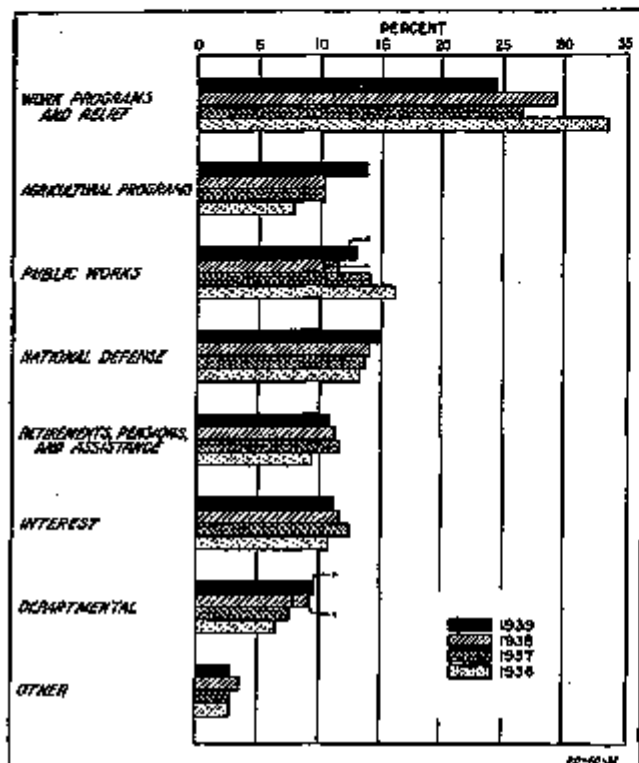


Figure 29.—Relative Importance of Major Categories of Budget Expenditures, Excluding Debt Retirement, Transfers to Trust Accounts, and Certain Governmental Corporations, 1936-39 (on Basis of Daily Statement, (Unrevised), of the U. S. Treasury).

\*Arrows point to percent of total expenditures in 1936 and 1939 on basis of new Treasury classifications. See table 1, footnote 2.

increased only slightly between 1938 and 1939, while public-works expenditures increased from 10.3 percent to 12.3 percent of the total.

#### Treasury Receipts.

The decline of national income during 1938 was the chief influence upon the tax revenues of the Federal Government during the past calendar year. Income taxes, which are paid for the most part on incomes of

the preceding year, yielded slightly less than 1,850 million dollars, a decline of 770 million from 1938. (See table 17 and fig. 30.) Total Federal revenues, however, were only 500 million dollars lower than in the preceding year. The expansion of business activity and pay rolls during 1939 led to an increase in the yield of miscellaneous internal-revenue taxes and of Social Security taxes by 220 million dollars, while the accompanying expansion of imports resulted in a minor increase in the yield of customs duties. These increases in miscellaneous internal revenue occurred despite the repeal of certain excise taxes on toilet preparations, sporting goods, cameras, furs, chewing gum, phonograph records, and other articles under the Revenue Act of 1938, and despite a reduction in declared capital-stock values under the provisions of the act which permitted corporations to make new declarations. On the other hand, the revenues were somewhat increased by the higher tax rate on distilled spirits other than brandy and the accompanying floor tax.

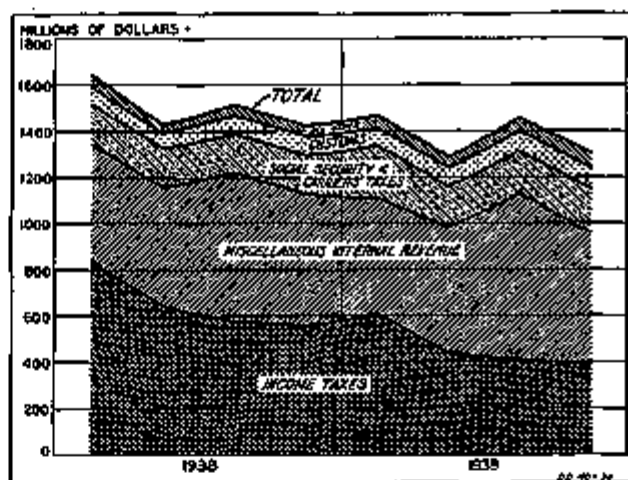


Figure 30.—Budget Receipts, 1936 and 1939 (on Basis of Daily Statement (Unrevised), of the U. S. Treasury).

The decrease in income taxes, although primarily a reflection of the fall in incomes between 1937 and 1938, was also affected by the Revenue Act of 1938, which changed corporation tax rates, including the rate on undistributed profits, and permitted a more liberal treatment of capital gains and losses of individuals.

Table 17.—Major Types of Budget Receipts,<sup>1</sup> 1936-39

(Millions of dollars)

Major type	1936, (1940)	1937, total	1938					1939				
			First quarter	Second quarter	Third quarter	Fourth quarter	Total	First quarter	Second quarter	Third quarter	Fourth quarter	Total
Income taxes	1,577	2,600	628	639	577	638	2,482	610	438	407	380	1,835
Social security <sup>2</sup>		866	170	170	166	166	672	223	179	163	164	730
Other internal revenue	2,168	2,324	666	509	638	661	2,474	465	636	717	681	2,500
Customs	414	483	76	66	81	83	296	75	79	80	89	323
All other	213	230	54	35	40	47	180	50	44	62	64	220
Total	4,372	6,212	1,544	1,432	1,509	1,418	5,903	1,423	1,379	1,447	1,327	5,485

<sup>1</sup> Basis of daily statement of U. S. Treasury.

<sup>2</sup> Includes taxes on carriers and their employees.

## Public Debt.

As a result of the billion-dollar increase in budget expenditures and the half-billion decline in receipts, the calendar-year deficit rose to approximately 4 billion dollars, 1,500 million more than in 1938. Despite this large increase in the deficit, however, the net amount of cash obtained from the public through borrowing operations was only 100 million dollars greater than in 1938. This was possible partly because the Treasury

Item	1938	1939	Change
Budget expenditures.....	\$4.491	\$5.508	+1,017
Budget receipts.....	5,992	5,488	-504
Budget deficit.....	2,499	4,821	+1,822
Deduct transfers to trust accounts and debt retirements.....	813	816	-23
Deduct net cash receipts of other accounts <sup>1</sup> .....	1,885	3,205	+1,319
Add decreases (-) or increases (+) in general-fund balance.....	779	1,167	+388
Net increase in publicly offered debt.....	+1,111	+1,440	+329
Net increase in publicly offered debt.....	+1,218	+1,440	+222

<sup>1</sup> Expenditures for national bank-note retirements and for investments in special Treasury securities and receipts through transfers from general fund are excluded.

<sup>2</sup> Includes 122 million dollars of publicly offered issues sold directly to government investment and trust accounts.

drew on the general-fund balance to the extent of 610 million dollars, and because nonbudgetary accounts provided 380 million dollars more cash than they had in 1938. As a consequence, the market debt rose by 1,440 million dollars, as compared with 1,218 million in the preceding year. The following figures show how the deficits of the past 2 years were related to the Treasury's public borrowing.

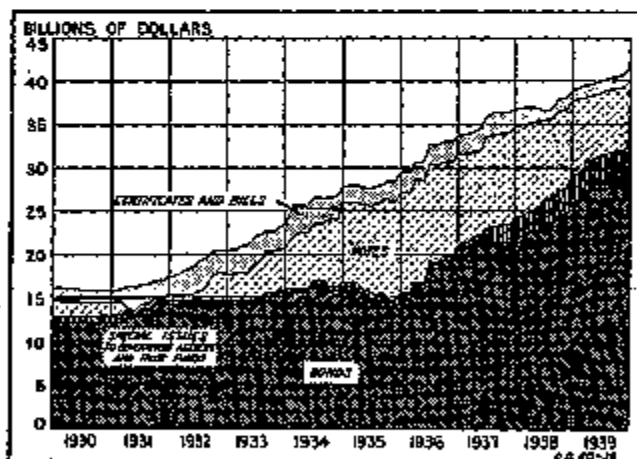


Figure 31.—Composition of Interest-Bearing Public Debt Outstanding, 1938-39 (on basis of Daily Statement (Unrevised), of the U. S. Treasury).

If we consider only the publicly offered securities which are marketable, the comparison with 1938 is even more striking. Of the 1,440-million-dollar increase in market debt in 1939, almost 770 million took the form of United States savings bonds and over 120 million

consisted of Treasury bonds sold directly to Treasury trust and investment accounts. The supply of marketable interest-bearing Treasury obligations sold to the public (excluding United States savings bonds sold directly to trust and investment accounts, and non-interest-bearing debt) rose by only 610 million dollars in 1939, as compared with nearly 850 million in 1938. Cash borrowing from the market during the year was confined to the net issue of 150 million dollars in Treasury bills and one bond issue of 9 to 11 years, bearing a 2-percent coupon, floated in December 1939, of which 520 million dollars was sold to the public. Treasury notes were redeemed in a net amount of 60 million dollars.

A major characteristic of recent Treasury financing has been the replacement of short-dated debt with obligations of longer maturity. This tendency is clearly shown in the rising average length of maturity of the interest-bearing debt:<sup>2</sup>

December 31:	Years	Months
1935.....	8	7
1936.....	9	11
1937.....	9	3
1938.....	10	0
1939.....	10	5

The longer average life of the debt is also indicated by the change in the type of obligation outstanding, shown in table 18 and figure 31. In the past 2 years the volume of publicly offered bonds has been increased by 7.6 billion dollars, while the volume of Treasury notes and bills has been reduced by 4.8 billion. This substitution of longer-dated debt, varying from 9 to 27 years in life, for debt with a maximum life of 5 years makes interest charges in succeeding years higher than they would be if maturing obligations were refinanced by new securities of approximately equal maturities. The public-debt operations of 1939 actually did have the effect of raising interest costs. In 1939, however, the effects which this shift toward longer-dated debt might be expected to have upon total interest charges were largely offset by the fact that the new securities issued, though of maturities equal to or longer than those for which they were exchanged, bore lower coupons, or bore coupons only slightly higher, and also by the fact that several issues were sold in March 1939 at a premium—all of which was credited to interest charges in 1939. The following figures, which show the chief refinancing operations carried out in 1939 (or at the end of 1938 in anticipation of 1939 maturities) permit a comparison of coupons and maturities of old and new securities.

<sup>2</sup> Exclusive of consols, postal savings bonds, U. S. savings bonds, adjusted service bonds, and special issues to government agencies and trust funds.

Securities	Coupon (Percent)	Maturity	Amount exchanged (millions of dollars)
Old.....	1½	4½ years.....	188
New.....	2½	20-27 years.....	
Old.....	1½	4½ years.....	701
New.....	2	8 years.....	
Old.....	2½	5 years.....	894
New.....	2½	25-27 years.....	
Old.....	2½	5 years.....	319
New.....	2½	12-14 years.....	
Old.....	1½	2 years, 3 months.....	416
New.....	¾	5 years.....	
Old.....	1½	4 years, 5 months.....	615
New.....	1	4 years, 4½ months.....	
Old.....	1½	5 years.....	1,217
New.....	2½	25-14 years.....	
Old.....	1½	5 years.....	283
New.....	1	4 years, 2 months.....	

The possibility of selling equal or longer term securities to yield less or only slightly more than the refunded obligations is a result of the sharp decline in interest rates which has occurred since 1934 and 1935, when most of the recently matured debt was issued.

Table 18.—Changes in Gross Public Debt, 1935 and 1939

(Millions of dollars)

Type of issue	1935	1939
<b>Market operations:</b>		
Cash:		
Treasury bills.....	-880	+1,149
Treasury notes.....	+815	-60
Treasury bonds.....	+385	+644
United States savings bonds.....	+478	+787
Other.....	-106	-51
<b>Total cash.....</b>	<b>+1,221</b>	<b>+1,440</b>
<b>Exchanges:</b>		
Treasury notes.....	-2,864	-2,232
Treasury bonds.....	+2,664	+1,332
Special sales.....	+828	+1,075
<b>Total gross debt.....</b>	<b>+2,149</b>	<b>+1,515</b>

\* Includes 125 million dollars of publicly offered issues sold directly to Government investment and trust accounts.

The increase in bonds publicly offered in 1939, issued both for cash and for refinancing of notes, does not account for much of the rise in interest charges on the budget for the calendar year 1939. Actual cash payments of interest changed only slightly from 1938, according to Treasury figures. The increase of 52 million dollars in budgeted interest was to a great extent a reflection of noncash charges. In the neighborhood of 18 million dollars represented accruals of interest on United States savings bonds.

A more important factor in the increase is to be found in a second significant characteristic of recent debt operations—the growing volume of debt held by special accounts. Under recent legislation, funds appropriated to certain trust and investment accounts must be invested in special United States Government obligations bearing coupons specified by statute. Of the 52-million-dollar increase of budgeted interest in 1939, about 33 million reflected payments on the

special 3-percent notes and 2½-percent certificates of indebtedness held respectively by the Old Age Reserve Account and the Unemployment Trust Fund and on other special securities held by trust and investment accounts.

A large part of the public debt has recently been taken by the Old Age Reserve Account and the Unemployment Trust Fund. These funds, set up under the Social Security Act, have accumulated the following amounts of Treasury securities in the past 3 years.

Fund	1937	1938	1939
	Millions of dollars		
Old Age Reserve Account.....	518	340	872
Unemployment Trust Fund.....	501	436	448

These accumulations represent primarily moneys credited to or deposited in the two accounts by the Federal and State treasuries. For accounting purposes these credits and deposits are regarded simply as expenditures of the various public treasuries. In substance, however, they are closely related to the payroll taxes levied under the act. If the transactions under the various social-security laws are viewed as a whole, it is clear that the legislation has had a powerful effect not only upon the source of funds from which the Federal deficits have been financed, but also upon

Table 19.—Federal Receipts and Expenditures Under Social Security, Railroad Retirement, and Railroad Unemployment Insurance Acts, Excluding Transfers From General Fund and Investments, Calendar Years 1936-39

(Millions of dollars)

Item	1936	1937	1938	1939	Total, 1936-39
<b>RECEIPTS</b>					
<b>General Fund:</b>					
Taxes under Social Security Act.....		698	838	970	1,806
Taxes under Railroad Retirement Act.....		88	125	113	316
Taxes under Railroad Unemployment Insurance Act.....				2	2
<b>Total taxes.....</b>		<b>786</b>	<b>963</b>	<b>1,085</b>	<b>2,134</b>
<b>Trust funds and accounts:</b>					
Deposits by States—Unemployment Trust Fund.....	64	247	225	231	2,291
<b>Interest on investments:</b>					
Old Age Reserve Account.....		2	16	27	45
Unemployment Trust Fund.....	1	8	9	27	45
Railroad Retirement Account.....			3	2	4
<b>Total interest.....</b>	<b>1</b>	<b>10</b>	<b>27</b>	<b>56</b>	<b>94</b>
<b>Total receipts.....</b>	<b>65</b>	<b>1,243</b>	<b>1,523</b>	<b>1,672</b>	<b>4,669</b>
<b>EXPENDITURES</b>					
<b>General Fund:</b>					
Administrative expenses.....	5	23	25	27	80
Grants to States.....	103	224	302	324	953
<b>Total General Fund.....</b>	<b>108</b>	<b>247</b>	<b>327</b>	<b>351</b>	<b>1,033</b>
<b>Trust funds and accounts:</b>					
Old Age Reserve benefits.....		1	10	14	25
Railroad Retirement benefits.....		35	96	125	261
Railroad Unemployment benefits.....				5	5
Unemployment Trust Fund—Withdrawal by States.....		2	404	430	836
<b>Total trust funds and accounts.....</b>		<b>38</b>	<b>510</b>	<b>574</b>	<b>1,407</b>
<b>Total expenditures.....</b>	<b>108</b>	<b>285</b>	<b>837</b>	<b>925</b>	<b>2,149</b>
<b>Excess of receipts.....</b>	<b>-43</b>	<b>958</b>	<b>686</b>	<b>747</b>	<b>2,359</b>

the net funds withdrawn from and paid out again into the stream of the country's money income. Table 19 shows that revenues under this legislation have been over 2,360 million dollars more than the amount paid out in grants, administrative expenses, benefits, and withdrawals by States.

#### Federal Corporations and Credit Agencies.

The increasing complexity of the economic activities of the Federal Government since the World War has led to the creation of numerous corporations and agencies whose operations are not, for the most part, reflected in the Federal budget. In the case of the corporations, budgetary appropriations have usually provided all or part of the original capital stock; in the case of the credit agencies, they have usually provided part or all of the original operating funds; and in addition, the corporations may receive annual appropriations for specific purposes, such as grants or operating expenses. Conversely, the corporations or agencies frequently repay the Treasury for previous advances, either as a result of liquidation or from funds derived from non-Treasury sources, and these repayments serve to in-

crease Federal receipts. To this extent, therefore, the operations of the corporations and agencies do affect the budget; but these effects are highly irregular, as they result from shifts in capital funds. The bulk of the ordinary loan and investment transactions are not reflected in budgetary receipts or expenditures, since most of the funds are not supplied by the Treasury. This situation, however, makes them no less important a part of the Federal financial picture.

The total assets of Federal corporations and credit agencies aggregated 12,824 million dollars on November 30, 1939. This constituted an increase of 728 million dollars during the preceding 12 months. As table 20 shows, loans and investments and capital-stock holdings totaled 8,860 million dollars, an increase of 484 million. Holdings of United States and United States-guaranteed securities were 874 million dollars, and portfolios of other securities (principally Land Bank bonds held by the Federal Farm Mortgage Corporation) totaled 889 million, an increase of 84 million. Other assets, including cash, accounts receivable, business property, and real estate held for sale, increased by 260 million dollars to 2,201 million.

Table 20.—Assets of Government Corporations and Credit Agencies, November 30, 1939

(Millions of dollars)

Agencies	Loans, capital-stock holdings, etc.		Investments				Total assets <sup>1</sup>	
	Nov. 30, 1939	12-month change	United States and United States-guaranteed securities		Other		Nov. 30, 1939	12-month change
			Nov. 30, 1939	12-month change	Nov. 30, 1939	12-month change		
LENDING AGENCIES								
Industrial, financial, etc.:								
Reconstruction Finance Corporation.....	1,599	-145	45		8	+8	1,703	-145
Export-Import Bank of Washington.....	39	+28					49	+28
United States Maritime Commission.....	49	-4			31		180	-4
Rural Electrification Administration.....	173	+84					177	+84
Home mortgage and housing:								
Home Owners' Loan Corporation.....	12,238	-145		-1			2,966	-111
Federal Home Loan Bank Board.....	169	-31	50	+11			231	-31
The R.F.C. Mortgage Company.....	98	+7					69	+9
Federal National Mortgage Association.....	143	+71					146	+73
Federal savings and loan associations <sup>2</sup> .....	40	-7					40	-7
United States Housing Authority.....	114	+96	2	+2			259	+117
Agricultural:								
Commodity Credit Corporation.....	687	+305					694	+312
Federal Farm Mortgage Corporation.....	694	-45			207	-4	1,541	-45
Federal intermediate credit banks.....	135	+5	75	+1			314	+4
Federal land banks.....	1,910	-23	85	+10			2,310	-23
Banks for cooperatives.....	72	-13	37	-1	7	+3	185	-4
Farm Credit Administration.....	228	+167					287	+167
Farm Security Administration.....	235	+70					255	+70
Public Works Administration.....	70	-30					70	-30
Diameter Loan Corporation.....	19	+13					21	+10
Other <sup>3</sup> .....	51	-8	24		102		285	+22
Total, lending agencies.....	8,808	+404	367	+28	889	+3	11,820	+581
INSURANCE AGENCIES								
Federal Deposit Insurance Corporation.....	55	+30	383	-9			490	+19
Federal Savings and Loan Insurance Corporation.....			120	+5			122	+10
Federal Housing Administration.....			35	+5			50	+10
Federal Crop Insurance Corporation.....							14	+7
Total, insurance agencies.....	55	+30	507	+1			676	+47
Tennessee Valley Authority.....							319	+65
Grand total <sup>4</sup> .....	8,860	+434	874	+29	889	+3	12,824	+728

<sup>1</sup> Also includes cash, receivables, and property holdings.

<sup>2</sup> Including shares in State and Federal savings and loan associations.

<sup>3</sup> Shares held by United States Treasury.

<sup>4</sup> Regional Agricultural Credit Corporations, Production Credit Corporations, Electric Home and Farm Authority, Federal Prison Industries, Inc., Indian loans of Interior Department, Inland Waterways Corporation, Panama Railroad Co., Puerto Rico Reconstruction Administration, Tennessee Valley Associated Cooperatives, Inc., and Treasury Department railroad loans.

<sup>5</sup> Includes war emergency corporations and agencies (in liquidation).

The increase in the capital funds of the corporations and agencies during 1939 reflected a large expansion of their debt, partly offset by a decline of the Federal Government's proprietary interest. Their guaranteed debt (including accrued interest) rose by 712 million dollars, while an additional 335 million reflected an increase in nonguaranteed liabilities and reserves. The Federal Government's proprietary interest, on the other hand, fell by an amount equal to the increase in nonguaranteed obligations and reserves. These changes are shown in table 21. It will be noted from the tables

that, although most of the corporations and agencies are primarily engaged in lending or similar operations, four are insurance agencies—the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, the Federal Housing Administration, and the Federal Crop Insurance Corporation. Their assets take the form, for the most part, of investments from capital and reserves which are in the process of being built up from premium payments. Also, the Tennessee Valley Authority is in a class by itself, its assets being primarily real estate and business property.

Table 21.—Liabilities of Government Corporations and Credit Agencies, November 30, 1939

(Millions of dollars)

Agencies	Liabilities and reserves				Proprietary interest			
	Guaranteed by United States <sup>1</sup>		Not guaranteed		Privately owned		Owned by United States	
	Nov. 30, 1939	12-month change	Nov. 30, 1939	12-month change	Nov. 30, 1939	12-month change	Nov. 30, 1939	12-month change
<b>LENDING AGENCIES</b>								
Reconstruction Finance Corporation	1,098	+357	95	+19			016	-743
Home Owners' Loan Corporation	2,838	-76	83	-16			43	-10
Home loan banks			75	-31	51	+5	123	
United States Housing Authority	115	+115	3	+2			131	-5
Commodity Credit Corporation	407	+231	197	+112			100	-1
Federal Farm Mortgage Corporation	1,277	-115	46	-8			217	+53
Federal intermediate credit banks			210	+33			104	+16
Federal land banks			1,804	-22	203	+10	303	-28
Banks for cooperatives			4	+1	4		178	-5
Farm Credit Administration			197	+292			90	-25
Other	1	-1	181	-10			1,153	+330
Total, lending agencies	5,734	+710	2,884	+272	258	+15	2,964	-425
<b>INSURANCE AGENCIES</b>								
Federal Deposit Insurance Corporation			200	+49	120		130	
Federal Housing Administration	3	+2	2	+1			44	+6
Other			5	+5			131	-1
Total, insurance agencies	3	+2	208	+55	120		305	+6
Tennessee Valley Authority			16	+9			303	+97
Grand total	5,737	+712	3,098	+335	378	+15	3,602	-414

<sup>1</sup> Including accrued interest totaling \$29,000,000.

With respect to loan operations the expansion in the year ended November 1939 was largely confined to agricultural agencies, which showed a net increase of 398 million dollars. The home mortgage and housing group showed no change in loans outstanding, whereas loans of the industrial and financial group declined 33 million dollars. The Commodity Credit Corporation, which makes loans on certain farm crops, showed the largest individual increase, 305 million dollars; Farm Credit Administration loans rose by 167 million. On the other hand, loans of the Reconstruction Finance Corporation and the Home Owners' Loan Corporation each declined by about 145 million. The Reconstruction Finance Corporation, the Home Owners' Loan Corporation, and the Federal land banks remain by far the largest of the agencies from the viewpoint of loans outstanding, having among them 5,754 million dollars in loans, or nearly two-thirds of the total loans of all the agencies; their combined assets constitute 54 percent of the aggregate.

The holdings of United States securities and securities guaranteed by the United States are concentrated

in the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation, which have 363 million and 120 million dollars, respectively. These investments represent most of their capital and their reserves accumulated against insurance liabilities. Similarly, the capital of several other agencies is invested in direct Treasury or guaranteed securities. The holdings of other securities are composed principally of the 761 million dollars of Federal land bank bonds held by the Federal Farm Mortgage Corporation. There was little change in these categories during 1939.

The 710-million-dollar rise in guaranteed obligations resulted largely from a net increase in Reconstruction Finance Corporation issues of 585 million dollars (plus 2 million of accrued interest), the proceeds of which were used to retire indebtedness to the Treasury. The Commodity Credit Corporation floated a note issue of 200 million dollars and the United States Housing Authority an issue of 100 million for the purpose of financing their current loan transactions. The outstanding guaranteed obligations of the Federal Farm

Mortgage Corporation, on the other hand, declined by 116 million dollars, and those of the Home Owners' Loan Corporation by 76 million.

There was little change during the year in the privately owned proprietary interest in the corporations. This interest is confined to capital-stock holdings in the Federal land banks, the Federal Deposit Insurance Corporation, and the Federal home loan banks, plus a small amount in the banks for cooperatives. The decline of 334 million dollars in the proprietary interest of the Federal Government was largely the result of the shift in Reconstruction Finance Corporation financing of 742 million dollars. This was offset in part by a rise in the miscellaneous category and the Tennessee Valley Authority.

A general indication of the types of loans made by the corporations and agencies is provided by their nomenclature. However, a specific break-down by type of borrower is presented in table 22. It will be observed that in the year ended November 1939 the classification of crop, livestock, and commodity loans showed by far the largest increase—389 million dollars. Farm mortgage loans fell by 146 million dollars, and urban mortgage loans by 64 million. In order of size, the largest outstanding categories were farm and urban mortgage loans, crop loans, and loans to (or purchases of capital stock of) banks, railroads, and building and loan associations.

Table 22.—Loans and Capital Stock Holdings of Government Corporations and Credit Agencies by Type of Borrower, Nov. 30, 1939

(Millions of dollars)

Type of borrower	Nov. 30, 1939	12-month change
Banks	654	-28
Railroads	497	-8
Insurance companies	39	-1
Building and loan associations	472	-30
Mortgage loan companies	94	-12
Cooperative associations	289	+51
States, Territories, etc.	184	+48
Ship construction and reconditioning loans	49	-4
Urban mortgage loans (p. s. c.)	2,212	-64
Farm mortgage loans (p. s. c.)	2,605	-146
Crop, livestock, and commodity loans	1,010	+389
Low-cost housing loans	174	+94
Foreign-trade loans	38	+33
Other loans and stock	683	+90
Total	8,960	+434

The balance sheets of the corporations and agencies by no means show the full scope of their activities during the course of the year. New loans were constantly being made and old loans were being repaid; the amounts outstanding on any one date and the net change from one year to the next understate the extent of their loan operations. Similarly, in the case of some agencies the loan and investment transactions constitute merely an incidental part of their activity. This is notably true of the insurance corporations. At the end of 1939, the Federal Housing Administration had outstanding insurance on mortgages with a total value of over 3,050 million dollars; this represented an increase of 950 million for the year 1939. In the case of the

United States Housing Authority, while project advances to the end of November 1939 amounted to 107 million dollars, the total loan contract commitments on those projects were 349 million. Additional commitments, on which no advances had been made, amounted to 188 million dollars, and earmarkings totaled 130 million. Furthermore, the United States Housing Authority has agreed, in connection with an arrangement inaugurated in November 1939, to refinance 51 million dollars of local housing-authority notes floated privately.

#### Cash Income and Outgo.

As has been indicated above, the budget operations of the Federal Government alone do not give a complete picture of the movements of cash into and out of the Federal Treasury. The growing importance of the

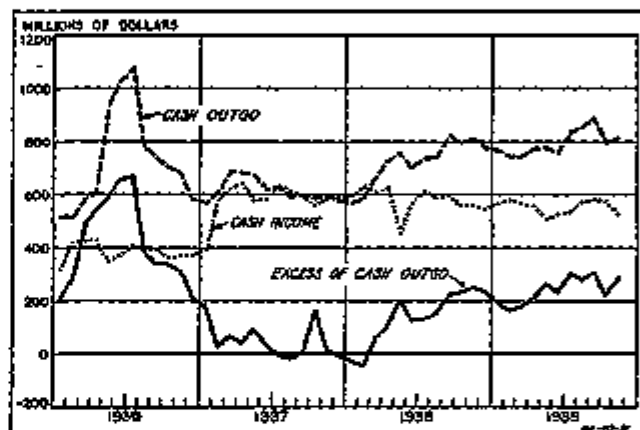


Figure 32.—Cash Income and Outgo of the Treasury, and Excess of Cash Outgo, 1936-39 (U. S. Treasury Department).

NOTE.—Data are plotted on a 2-month moving average, centered at the second month. Basic figures for January 1940 were not available in time to compute moving average figures for December 1939.

social-insurance accounts and the segregation of certain self-financing credit agencies and governmental corporations must also be considered. To fill this need, the Treasury has compiled a series designed to show its cash income and outgo, excluding public-debt transactions other than redemptions of adjusted service bonds. This series, slightly smoothed, is shown in figure 32. Cash outgo declined sharply from the middle of 1936 until 1938 largely because of the peak in the summer of 1936 when the adjusted service certificates were paid. Cash income, on the other hand, rose sharply in 1937, with the result that the excess of cash outgo, from a high at the time of the prepayment of the adjusted service certificates in the middle of 1936, was converted into an excess of cash income in several months of 1937. In 1937 as a whole, the cash deficit fell to 330 million dollars. This sharp decline was reversed in 1938. Disbursements increased in 1938, while receipts fell. This movement continued into 1939 and consequently the cash deficit in 1939 exceeded that of the preceding year by 1,285 million dollars.

## International Trade and Finance

### Balance of Payments

The broad features of the balance of international payments of the United States in 1938 were reproduced in 1939. (See table 23 and figure 33.) The unusually large surplus of merchandise exports over imports in these years was offset to only a minor extent by net payments to foreigners for various services. The resulting excess of receipts by this country on trade and service account, coupled with an influx of capital funds from abroad, was responsible for a heavy inflow of gold in continuation of the extraordinary movement begun in 1934.

Table 23.—Balance of International Payments of the United States, 1938-39  
(In millions of dollars)

Item	1938 (Revised)			1939 (Preliminary)		
	Re- ceipts (ex- ports)	Pay- ments (im- ports)	Net re- ceipts (+) or net pay- ments (-)	Re- ceipts (ex- ports)	Pay- ments (im- ports)	Net re- ceipts (+) or net pay- ments (-)
Trade and service items:						
Merchandise:	2,094	1,961	+1,133	2,172	2,313	+859
Freight and shipping:	113	155	-42	137	216	-79
Travel expenditures:	162	516	-354	164	495	-330
Personal remittances:	83	150	-67	84	137	-53
Institutional contributions:	—	40	-40	—	40	-40
Interest and dividends:	543	216	+327	525	230	+295
Government transactions:	34	93	-59	34	93	-59
Miscellaneous services and ad- justments:	277	98	+179	277	98	+179
Total trade and service items:	3,261	3,235	+26	3,325	3,623	-298
Gold and silver:						
Gold exports and imports:	6	1,970	-1,964	1	3,375	-3,374
Gold earmarking operations (net):	—	—	—	—	—	—
Gold movements (net):	—	—	-1,964	—	—	-3,374
Silver exports and imports:	7	231	-224	15	85	-70
Total gold and silver movements (net):	—	—	-2,188	—	—	-3,444
Capital items:						
Long-term capital movements:	—	—	+23	—	—	+23
Short-term capital movements:	—	—	+295	—	—	+295
Paper currency and miscel- laneous capital movements:	—	—	+12	—	—	+12
Net capital movements:	—	—	+320	—	—	+530
Residual item:	—	—	+508	—	—	+1,151

Source: Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

In point of relative magnitudes, the merchandise trade balance was reduced from \$1,133,000,000 in 1938 to approximately \$859,000,000 in 1939, or by 24 percent; while net payments to foreigners on service transactions, including interest and dividend items, were only slightly changed from an estimated \$107,000,000 to \$132,000,000. The influx of capital in 1939, as indicated by available data (see p. 49), was roughly four times the volume reported for 1938; and, wholly as a consequence of the increase in the capital movement, the gold inflow rose to an unprecedented figure of \$3,040,000,000 in 1939 from \$1,640,000,000 in the previous year. The structure of the balance of payments in the two periods differed in one significant respect. In 1938, the principal factor affecting the gold flow was the excess of commodity exports, with the net capital

movement, because of major opposing trends within the year, playing a subordinate role. In 1939, the transfer of capital funds to the United States was clearly the primary influence. By contrast with the preceding several years, however, the results of trade and service transactions in both 1938 and 1939 contributed substantially to the shift of gold to the United States, whereas in the years 1934-37 the inflow of capital was the dominant or sole factor operating to draw gold from other countries.

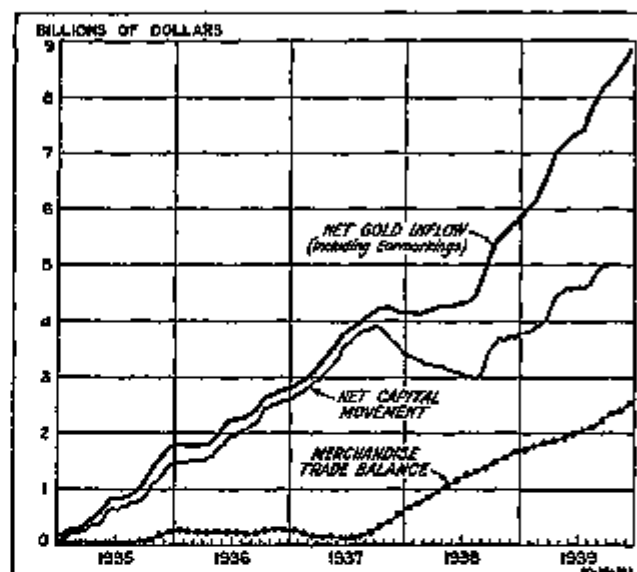


Figure 33.—Cumulative Net Movements of Gold and of Capital Between the United States and Foreign Countries, and Cumulative Excess of Merchandise Exports Over Imports, Since the Beginning of 1935 (Net Gold Inflow, U. S. Department of Commerce and the Board of Governors of the Federal Reserve System; Net Capital Movement, U. S. Treasury Department; and Merchandise Trade Balance, U. S. Department of Commerce).

Note.—Data for "Net Capital Movement" are plotted weekly; other data are plotted monthly. Data for "Net Capital Movement" subsequent to the week ended September 27, 1939, were not available in time to include them in this chart.

### Merchandise Trade

As indicated in table 24 and figure 34, the increase in total merchandise exports in 1939 as compared with 1938 was entirely the result of larger shipments during the second half of the year.<sup>1</sup> From January through May, exports were below the levels of the preceding year. Beginning in June, they rose above shipments in the corresponding months of 1938 by a margin which widened to 37 percent in December. For the year as a whole, however, the increase in the value of exports was only 3 percent and the aggregate was smaller than in 1937. Merchandise imports in 1939 were consistently larger than in 1938, as a rising trend, paralleling the course of industrial production, carried import trade up from the low point of mid-1938. The increase for the year was approximately 18 percent. The physical volume of foreign trade rose about 5 percent in the case of exports and about 15 percent in the case of imports.

<sup>1</sup> See Recent Trends in United States Export Trade, Survey of Current Business, January 1940.

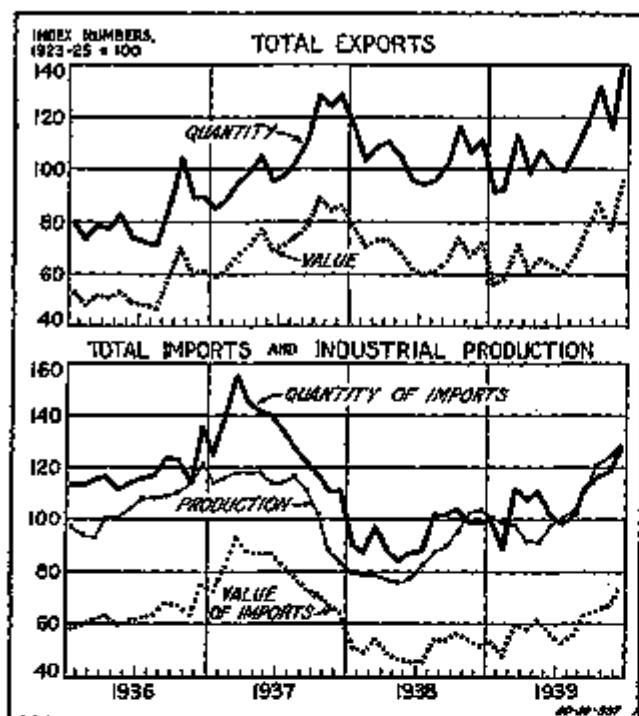


Figure 34.—Indexes of Quantity and Value of Exports of United States Merchandise, and Imports for Consumption (Unadjusted), and Volume of Industrial Production (Adjusted for Seasonal Variations), 1936-39 (Exports and Imports, U. S. Department of Commerce; Industrial Production, Board of Governors of the Federal Reserve System).

Price changes tended to raise the value of imports throughout 1939 and to depress the value of exports until the sharp rise in export prices during September.

Table 24.—Foreign Trade of the United States, by Months, 1938-39

(Millions of dollars)

Month	Total exports			General imports		
	1938	1939	Per-centage change	1938	1939	Per-centage change
January.....	289	213	-26	171	178	+4
February.....	262	219	-16	185	168	-9
March.....	276	268	-3	173	190	+10
April.....	274	281	+10	160	186	+16
May.....	287	249	-13	143	202	+42
June.....	258	230	-11	144	170	+19
July.....	228	230	+1	141	169	+20
August.....	231	231	+0	165	173	+5
September.....	246	289	+17	168	181	+8
October.....	273	332	+21	178	215	+21
November.....	233	293	+26	170	235	+38
December.....	269	308	+14	171	247	+44
Total.....	2,094	2,177	+4	1,900	2,312	+22

Source: Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

The comparative trends of export and import prices, shown in figure 35, indicate that the terms of international trade have become less favorable to the United States during recent years; that is, the cost of goods imported into the United States expressed in terms of domestic goods exported has risen. This development, which is fairly typical in a period of generally expanding international trade for a country exporting chiefly manufactured articles and importing

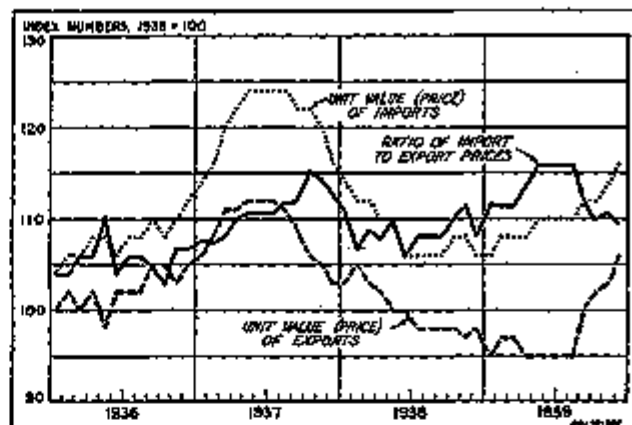


Figure 35.—Indexes of Unit Value (Price) of Exports of United States Merchandise, and Imports for Consumption (Unadjusted), and Ratio of Import Prices to Export Prices (Terms of Trade) 1936-39 (U. S. Department of Commerce).

chiefly crude products (because of the greater sensitivity of raw-material prices), became marked during the last half of 1938 and the first half of 1939 as import and export prices moved in opposite directions—the former up, the latter down. In September the sharp rise in the prices of certain export products made the terms of trade temporarily more favorable to the United States.

Lower dollar-exchange rates for foreign currencies, shown in figure 36, notably for the pound sterling and the French franc, contributed to the downward movement of import prices during the first three quarters of 1938. In the early part of 1939, however, the unit value of imports rose, while the prices of foreign currencies in New York remained fairly stable. In September, when rates for the pound and associated units reached levels approximately 14 percent below those of July, import prices nonetheless increased. In both instances, of course, the increase in import prices was due to a rise in the foreign-currency prices of imported goods. As suggested by the data in table 25, the effect of the depreciation of foreign currencies on import prices and the terms of international trade has been largely or entirely counterbalanced since September by the rise in internal prices in neutral as well as in belligerent countries.

Although detailed returns for 1939 reveal significant changes in the character and direction of United States export trade, the outbreak of the war in Europe had considerably less effect upon exports than (to judge by domestic reactions to the events of September) was generally anticipated. Shipments of goods to foreign countries had advanced prior to the outbreak of war, and the increase from September through November was of little more than seasonal proportions. In December, however, there was a sharp gain. The increases after September did not occur in trade with the United Kingdom and France (despite their large purchases of aircraft, metals, and other war supplies in the United States), but were almost entirely the consequence of increased exports to the European

neutrals and to countries outside Europe. Purchases of United States merchandise by the Scandinavian countries rose by no less than 67 percent over 1938; those by Canada increased approximately 43 percent; and for Latin American countries the gain was 42 percent. Direct shipments to Germany, already materially reduced during recent years, fell to negligible proportions.

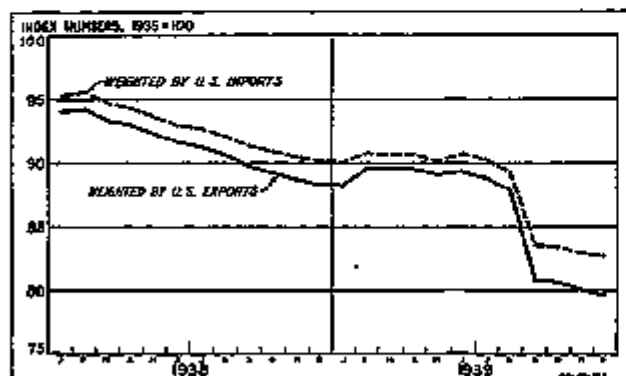


Figure 34.—Indexes of Prices of 40 Foreign Currencies in New York, 1938 and 1939 (U. S. Treasury Department).

Exports to the United Kingdom and, until December, to France were on much the same scale as in 1938. The reduced importance of the United States as a supplier of food and raw materials to Europe, the greater self-sufficiency of the British and French Empires, the anticipation of present war needs through the building up of reserve stocks, the absence of destructive land operations, and the speed with which wartime controls were imposed by the belligerent powers account for the failure of the export trade to expand quickly and for major differences between the outlook for export trade in 1914 and 1939. Before the end of the year it was apparent that the Allied Powers, in addition to cutting off direct trade with Germany and restricting trade with neutral countries contiguous to Germany, were keeping at a minimum their purchases in the United States of nonessential commodities or of commodities which for economic or political reasons could be obtained more advantageously elsewhere. Thus, for example, imports of American tobacco into the United Kingdom, hitherto the principal foreign market for the product, were sharply curtailed and then shut off altogether. On the other hand, heavy Allied demands for manufactures such as airplanes, machine tools, petroleum products, and motor trucks were evident in export returns for the closing months of the year.

In December, shipments (particularly of aircraft) to the European belligerents materially affected the export total, which reached the highest point since March 1930. General imports were larger than in any month since July 1937, but the balance of exports—\$120,000,000—exceeded that of any month since October 1929. Besides the rise in shipments to the United Kingdom and France in December, there were continued substantial gains in export trade with all world

areas as compared with 1938 results, or, in the cases of northern North America, Latin America, and Asia, as compared with 1937 returns. The sharp increase in cotton exports in December, together with large shipments during the preceding 4 months, offset the small movement during the first half of the year and brought the total for the year to the 1938 level. Exports of agricultural products as a group dropped during 1939

Table 25.—Dollar Exchange Rates and Wholesale Price Movements in Selected Countries, July and December 1939

Country	Value of currency in terms of dollar			Wholesale prices (percentage change July 1939-December 1939)
	July 1939	December 1939	Percentage change	
United Kingdom.....	\$4.682	\$4.040	-14	+22
Canada.....	.968	.890	-11	+12
Japan.....	.273	.234	-14	+16
Netherlands.....	.523	.581	9	+21
Switzerland.....	.220	.224	+1	+17
United States.....				+4

Sources: Federal Reserve Bulletin, except December currency values, for United Kingdom and Canada, which are official rates.

largely as a consequence of reduced shipments of grains, which had been in heavy demand in 1937-38, and of leaf tobacco and fruit, both of which came under wartime restriction. Increases in exports in 1939 as a whole, as well as during the last 4 months of the year, were concentrated largely in manufactured products, especially metals and manufactures, aircraft, machinery, lubricants, and chemicals.

### Service Transactions

Preliminary estimates indicate that net payments by the United States to foreigners for services were somewhat increased in 1939 as compared with 1938. The higher volume of merchandise imports, the restrictions and prohibitions placed upon the operations of American vessels under the provisions of neutrality legislation, and the jump in ocean freight rates following the outbreak of war in Europe, all tended to increase payments to foreigners for ocean freight. On the other hand, outlays by United States residents for foreign travel, although reduced from 1938 levels, were not seriously affected by the virtual stoppage of outbound traffic to Europe, which occurred after travel to the Continent was past its seasonal peak. Expenditures by American travelers in Canada and Mexico were about the same in 1939 as in 1938. Foreigners visiting the United States spent a larger aggregate sum in 1939 than in the preceding year, entirely as a result, however, of larger outlays by visitors from overseas.

Net income from foreigners on interest and dividend account, while continuing to reflect the substantial creditor position of the United States in respect of long-term investments, was reduced in 1939, partly as a consequence of smaller receipts of interest on American holdings of foreign dollar bonds. The return on American direct investments abroad was not much changed,

so far as available indications show. Payments to foreigners during 1939 on interest-and-dividend account were probably somewhat higher than in 1938, not because of the heavy inflow of capital during the year (which was largely a transfer of foreign funds into balances on which no interest can be paid rather than a shift in investments of actual or prospective earning capacity), but because of an improved dividend rate on foreign holdings of domestic shares.

Among other service transactions, personal remittances to foreign countries by alien and other residents of the United States declined during 1939 by approximately 10 percent from 1938 estimates.

### Gold and Silver Movements

The rate at which foreign gold has moved to the United States in recent years has been a fairly accurate measure of the explosive potentialities of political developments in Europe. The inward gold movement, serving as the vehicle for the transfer of capital funds, assumed extremely large proportions in the autumn of 1935, when Italy undertook the subjection of Ethiopia. It reacted sensitively to the shifts from one financial and political crisis to another in France during the first 9 months of 1936, became highly accelerated at the time of the Munich conference in September 1938, and finally in 1939 reflected a flight of capital from Europe of such proportions as only the apparent inevitability of war could induce. This inpouring of gold from foreign countries during 1939, which added \$3,040,000,000 to domestic monetary gold stocks, was far in excess of the previous record inflow of \$1,739,000,000 in 1935.

Table 26.—Gold and Silver Imports Into the United States and Gold and Silver Production Outside the United States, 1934-39  
(Millions of dollars)

Year	Gold imports (net)	Gold production outside United States	Silver imports (net)	Silver production outside United States
1934	1,217	962	86	76
1935	1,728	920	336	113
1936	1,030	1,075	174	86
1937	1,288	1,078	83	92
1938	1,640	1,164	223	60
1939	2,030	1,132	71	60
Total	10,032	6,261	874	647

<sup>1</sup> Preliminary.

Total receipts of gold from foreign sources in the years 1934-39 amounted to more than \$10,000,000,000. (See table 26.) During each of the years in this period, the inflow from abroad exceeded world production outside of the United States, although output was considerably increased. Nearly three-fourths of total imports of gold into the United States in 1939 came from accumulated reserves or from new production in the United Kingdom, Canada, and other British countries, which together control two-thirds of the world's output. Receipts from the European neutrals were exceptionally heavy during the year, and those from Japan and from producing areas in Latin America continued large.

In addition to shipments of gold to the United States for immediate conversion into dollar balances in 1939, large amounts were imported to be placed under earmark for foreign account during the months preceding the outbreak of the war in Europe and again in December. These deposits of gold for safekeeping or for future conversion into dollar balances raised the total amount of gold held in this country under foreign ownership from \$629,000,000 at the end of 1938 to \$1,283,000,000 on July 31. These resources were drawn down during the succeeding 4 months by \$325,000,000, but further additions in December brought the aggregate to \$1,163,000,000 at the end of 1939. Both the heavy inflow of gold after August (aggregating almost \$1,000,000,000), against which there was no visible accumulation of dollar balances, and the building up of earmarked stocks in December revealed the extremely heavy requirements, either current or prospective, for dollar exchange to meet commitments in the United States by foreign governments and others.

Net imports of silver in 1939, amounting to about \$70,000,000, were the smallest in 6 years and only about a third of net receipts in 1938. Cumulative net imports since the beginning of 1934, representing for the most part purchases by the Treasury in accordance with the terms of the Silver Purchase Act, reached nearly \$1,000,000,000 by the end of 1939. In effect, these receipts of silver from foreign sources absorbed the whole of silver production outside the United States as well as very substantial sums coming out of existing stocks in other countries.

### Capital Movements

Two periods of extreme international tension in the first 9 months of 1939, the latter culminating in war in Europe, caused a reported inflow of capital into the United States of \$1,179,000,000, as reflected in figure 37. The average monthly rate of flow thus substantially exceeded the rate during any of the four preceding years. Eighty-five percent of the net capital imports took the form of foreign short-term banking and brokerage balances in the United States, increasing the total of such investments to \$3,195,000,000 as of September 27, 1939. Foreign long-term investments declined slightly to \$5,635,000,000 as of this same date, as a result of net sales of United States securities by foreigners amounting to \$46,000,000. On balance the changes in these two items account for an increase of about \$950,000,000 in foreign investments in the United States during the first three quarters of 1939.

United States short-term investments in foreign countries were affected by the withdrawal of \$157,000,000 of banking and brokerage funds from abroad, bringing the total of such investments in foreign countries down to \$532,000,000 at the end of September. In addition, American portfolio investments abroad were reduced to \$3,950,000,000 by reported net foreign purchases of

foreign securities totaling \$87,000,000. The combined effect of all these four classes of capital movements was a substantial reduction in the net creditor position of the United States.

January, February, and early March of 1939 were, as regards capital movements, a continuation of the last 3 months of 1938, in that they were not dominated by political crises. There was, however, considerable uncertainty, and this was reflected in pressure on sterling, which in November 1938 dropped from \$4.75½ to \$4.63. Sterling recovered early in December to \$4.70, but leveled off again and reached \$4.62½ on January 3. At this point the British Government took steps to protect the exchange by placing informal restrictions on the operations of speculators and by

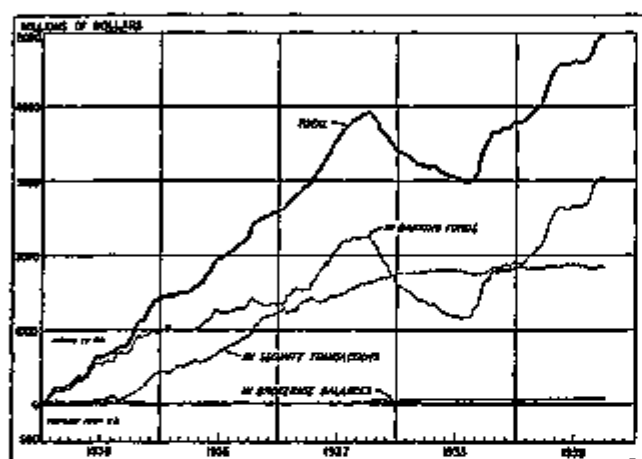


Figure 37.—Cumulative Net Capital Movements Between the United States and Foreign Countries, by Types, Beginning with January 2, 1935 (U. S. Treasury Department).

NOTE.—Data subsequent to the week ended September 27, 1939, were not available in time to include them in this chart.

strengthening the position of the exchange equalization account. For a time these measures seemed to be effective. However, weaknesses in some neutral currencies soon became evident. Late in January and in February the Dutch guilder was subjected to especially heavy pressure as a result of the outflow of refugee funds and remittances of the proceeds of several foreign loans. The belga was affected adversely by cabinet difficulties. Capital and gold were exported from the Netherlands and Belgium in large volume.

#### Foreign Official Balances Increased.

About the middle of March the motivation of capital movements changed. On the 15th, Germany invaded Czechoslovakia and the unrest which followed induced a reported capital inflow averaging more than \$75,000,000 a week during a 6-week period. The invasion of Czechoslovakia and the pressure on Rumania caused, first, the ostentatious dropping of the appeasement policy by the British Government, and, second, the formulation of a system of European alliances and guarantees by England and France.

The vast rush of European capital to the United

States in search of safety had subsided, or worn itself out temporarily, by early May. After that time capital movements, instead of being almost entirely an inflow of private funds, seemed to be dominated by the flow of foreign-government and central-bank funds. From April 26 to September 27 the deposit liabilities to foreign banks of member banks in 101 cities reporting weekly to the Federal Reserve Board, which include the accounts of foreign individuals and commercial banks, rose about 18 percent. During the same period the deposit liabilities of the Federal Reserve Banks to foreign central banks increased 108 percent. Approximately the same 5-month period saw a net increase in gold earmarked for foreign account at the Federal Reserve banks amounting to \$365,000,000. The total gold so held at the end of September was \$1,133,000,000.

These developments pointed to a policy of building up reserves of dollar purchasing power on the part of neutrals as well as of belligerents. As shown in table 27, each country or area except Germany and Italy increased its short-term assets in this country. Accounts for the United Kingdom, France, and Canada increased \$424,000,000, or about 50 percent, as shown in table 27. The accounts of European neutrals increased \$369,000,000, or about 60 percent, while those of Latin America and the Far East increased \$186,000,000, or about 25 percent. As conditions in Poland approached a crisis and war fears became greater in August, a flight of capital again occurred. This time, in order to conserve gold resources and penalize the export of capital, the British official support was withdrawn from the exchange market. As a result, sterling fell from \$4.60 on August 25 to \$4.12 on August 28, recovering by the end of August to \$4.40, only to fall upon and after the opening of the war to \$4 and below.

Table 27.—Foreign Short-Term Liabilities of United States Banks and Brokers, by Countries, December 28, 1938, and September 27, 1939

(Billions of dollars)

Country or area	December 28, 1938	September 27, 1939	Increase (+) or decrease (-)
United Kingdom.....	446	669	+223
France.....	186	304	+118
Germany.....	26	8	-18
Italy.....	23	17	-6
Netherlands.....	102	182	+80
Switzerland.....	224	312	+88
Other Europe.....	253	630	+377
Total Europe.....	1,264	1,962	+698
Canada.....	239	352	+113
Latin America.....	237	368	+131
Far East.....	401	439	+38
All other.....	32	67	+35
Total.....	2,193	3,193	+1,000

Source: Bulletin of the Treasury Department, Office of the Secretary, Issues of March and December, 1939, as adjusted for certain special deposit accounts not included in the Treasury figures.

#### Transactions in Domestic Securities.

Total reported foreign transactions in United States securities from January through September resulted in net sales of \$46,000,000. At the same time that the United Kingdom was building up deposits in American

banks, it was selling United States securities. Net sales by the British occurred in seven of the nine months and aggregated \$64,000,000. They were particularly heavy in January, when the British Government exhibited a determination to support sterling exchange, and in September, the first month of the war, Canada, France, Germany, and Italy also sold United States securities on balance during the first three quarters of 1939, whereas all other countries and areas were net purchasers.

Contrary to the reaction to the opening of the war in 1914, the stock market experienced a substantial rise in September. Stock price indexes advanced 14 percent during the month. The United Kingdom was a large net seller during the last 3 weeks of the month, while the Netherlands, Switzerland, and the Far East were net purchasers during the first 3 weeks in almost equal volume.

It is not possible at this time to estimate the long-term effect of the war on the prices of American securities. The liquidation of European holdings which will undoubtedly occur if the war is of moderate or long duration will exert a depressing effect on prices, whereas the stimulation of production in this country as a result of larger foreign orders will tend to counteract that downward pull. It was apparent as early as last July, however, that the British Government appreciated the importance of American investments and would take measures to insure an orderly liquidation in the event of war. It was at that time that the Government instituted a study of the holdings of British investing institutions. This was followed on August 27 by a ban on the sale of certain foreign securities, including those payable in dollars, and by an order that all investors report their holdings to the Bank of England. On September 17 the French Government decreed that French holders of funds or property abroad must declare them to the Government by December 1. While these measures do not strictly involve mobilization of foreign assets, other measures of exchange control restrict the sale of such assets. Furthermore, it is likely that if the need arises, belligerent and even neutral governments will mobilize all the foreign assets of their citizens in order to conserve all possible dollar purchasing power.

#### American-Owned Funds Repatriated.

American-owned short-term assets in foreign countries were reduced more sharply during 1939 than in any year since 1935. The reduction of \$157,000,000 by the end of September was accomplished without interruption except for July. Reductions which occurred in all areas except Latin America bear witness to the efforts of American banks to avoid the risk of having large assets tied up in areas greatly affected by war. Substantial reductions were again reported in assets in Germany throughout the year, and in noticeable volume in the United Kingdom in March and April.

Transactions in foreign securities during the January-September period resulted in net purchases amounting to \$87,000,000. They were probably restricted largely to taking care of maturities. New foreign issues offered publicly in the United States were confined to three Canadian issues—two Provincial and one corporate. According to preliminary estimates, only about \$35,000,000 of the \$82,000,000 par value of these issues was for new capital, the remainder being for refunding purposes.

#### Political and Economic Factors.

At times the flow of capital to the United States during the last 5 years was induced by purely economic conditions, domestic and foreign; at other times national political events caused special movements of more localized importance yet of considerable volume; and, again, world political crises leading to threats of war became the principal influences. These influences did not always operate separately. In fact, they were generally associated, although often in a rather broad sense, and with one usually in the dominant role.

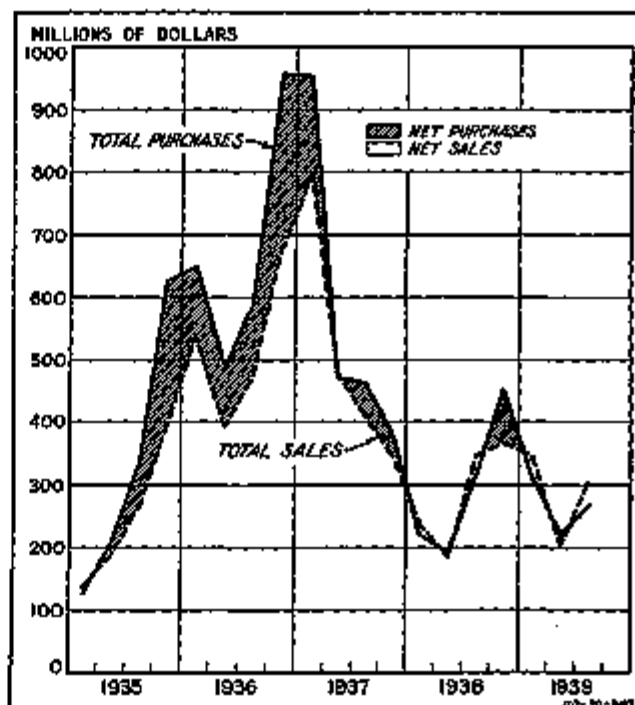


Figure 38.—Foreign Purchases and Sales, and Net Purchases or Sales of United States Domestic Securities, 1935-39 (U. S. Treasury Department).

Note.—Data include transactions executed in the United States for foreign account, executed abroad for domestic account, and transactions in joint foreign arbitrage accounts as reported by banks, brokers, and dealers in the United States. Quarterly figures in chart are totals of weekly transactions through September 27, 1939; data for subsequent weeks were not available in time to include them in this chart.

Without evidence of advancing business in the United States, particularly as reflected in rising security prices, the large net foreign purchases of American stocks and bonds in 1936 and early 1937 probably would not have taken place. Nevertheless, the recession in the summer and fall of 1937 did not immedi-

ately result in net sales for any extended period. Foreigners did sell on balance during the first 6 months of 1938. (See fig 38.) Economic conditions in France, in particular, were at the bottom of the intermittent financial and political exigencies which featured French developments for several years and therefore were important factors in the flights of French capital. Economic conditions were likewise important as contributing factors in the political stress and capital movements of other countries.

The large movements of short-term banking funds to the United States preceding the devaluation of the belga in March 1935, the gold-bloc difficulties which both preceded and followed that event, and the franc devaluation of September 1936 were, in their origin, motivated by economic and political forces. These mixed financial and political factors had their principal effect in the flow of short-term capital rather than in the longer-term securities movements.

The more purely political influences resulted primarily in the movement of banking funds. The few weeks preceding the critical conditions in Europe in September of 1938 and, to a much lesser degree, in March of 1939 were characterized by net sales of United States securities, apparently in anticipation of a falling market in the event that war resulted. In each instance, however, these were quickly followed by net purchases of at least equal volume.

#### Capital and Gold Movements Closely Related.

Net capital imports into the United States from the beginning of 1935 to September 27, 1939, aggregated \$4,959,000,000, and net gold imports, including changes in earmarked gold, totaled \$3,176,000,000. Part of the difference between these two figures is caused by the inability to get reports on certain types of capital transactions. During the first 9 months of 1939, net capital imports totaled \$1,179,000,000 and gold imports \$2,381,000,000. It seems likely that in the future to a considerable extent, as has happened in some instances in the past, gold will be shipped to this country for the purpose of maintaining dollar balances as these are consumed in making purchases in this country. The relationship between the two movements—gold and capital—may be obscured by the use of net figures and the more apparent relationship will be that between gold movements and net merchandise exports. In other words, the bank accounts into which the proceeds of the gold imports might be placed may not reflect those sums because they will be drawn upon concurrently in order to pay for merchandise exports.

#### International Investment Position of United States.

World conditions during the years 1935-39 have been such as to induce capital to flow to the United States in large volume each year from all parts of the world with correspondingly large changes in interna-

tional investments. The net reported inflow of capital from January 2, 1935, to September 27, 1939, aggregated \$4,959,000,000, as shown in figure 39. About 63 percent, or \$3,117,000,000, of the capital which has come to the United States during this period has been banking and brokerage funds. Part of these funds have been American-owned and, as a result, the foreign assets of American banks and brokers were reduced to less than half their previous volume—that is, from \$1,234,000,000 to \$532,000,000. On the other hand, the inflow of short-term funds multiplied the foreign liabilities of these institutions almost five times—from \$679,000,000 to \$3,195,000,000.

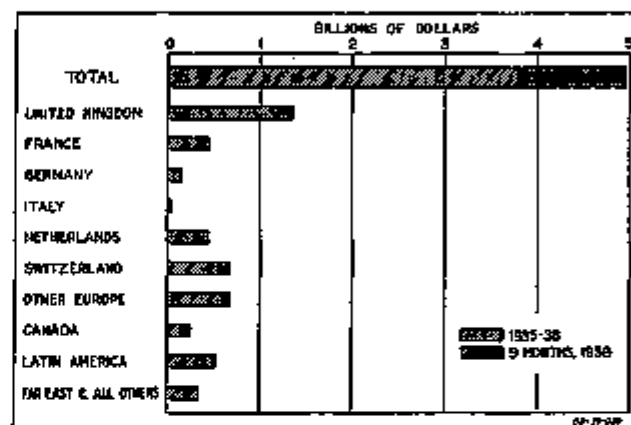


Figure 39.—Net Capital Movements Between the United States and Foreign Countries, by Selected Countries, Beginning with January 2, 1935 (U. S. Treasury Department).

NOTE.—Data are totals for the periods from January 2, 1935, through December 31, 1938, and December 26, 1939, through September 27, 1939; data for subsequent weeks were not available in time to include them in this chart.

At the end of 1934, foreigners had accumulated a portfolio of investments in United States stocks and bonds totaling \$2,089,000,000. The net purchases in 5 years of active trading aggregated \$1,164,000,000—a little more than half of the previously accumulated holdings. Through these net purchases and changing market prices, foreign holdings at the end of September 1939 were estimated to have increased to \$3,200,000,000. Foreign ownership of subsidiary and branch enterprises (direct investments) brought the total long-term investments to \$5,635,000,000 (table 28).

Fourteen percent (\$677,000,000) of the net capital inflow into the United States during the period in question went into net purchases of foreign securities in this market. Most of these purchases reduced American holdings of foreign dollar bonds, with the result that the par value of such investments was reduced from \$5,296,000,000 at the end of 1934 to about \$3,950,000,000 at the end of September 1939. United States direct investments in foreign countries were estimated at \$7,100,000,000. It is at once apparent from the data regarding foreign securities that net purchases by foreigners were made at prices averaging around 50 percent of par. Many of the purchases were made by investors in the issuing and other foreign countries who were at-

tracted by the low prices at which particular issues were selling in this country. Some purchases, however, were sinking-fund and redemption purchases made in accordance with the provisions of the bond indentures. Some of the redemptions, such as those by Canada in 1936 and Argentina in 1937, were made before maturity and were the means by which foreign countries were able to reduce their external debts.

The net creditor position of the United States on long-term and short-term international investments, excluding the war debts, amounted to \$8,494,000,000 at the end of 1934 and to \$3,876,000,000 at the end of 1938. Capital movements during the first three quarters of 1939 followed the trend of recent years and caused a further large reduction to \$2,752,000,000 at the end of September 1939.<sup>1</sup> (See table 28.) The inflow of short-term capital, consisting of banking and brokerage funds, was responsible for all of the reduc-

<sup>1</sup> The data on international capital movements and on the creditor-debtor position of the United States used in this analysis are based on available statistical data and do not take account of the very large residual of unidentified transactions which presumably consists in large part of unreported capital transfer.

tion in the net creditor position of the United States in 1939. It was also the most important factor during the years 1935-38. However, there were over this period large increases in foreign holdings of United States securities and still larger reductions in American holdings of foreign securities.

Table 28.—United States International Investments, End of 1934 and 1938 and September 1939

(Millions of dollars)

Item	End of 1934	End of 1938	September 1939 (preliminary)
United States investments in foreign countries:			
Long-term.....	12,220	11,070	11,958
Short-term.....	1,224	689	532
Total.....	13,444	11,759	12,490
Foreign investments in the United States:			
Long-term.....	4,367	5,590	5,635
Short-term.....	570	2,793	3,186
Total.....	4,937	8,383	8,821
Net creditor position of the United States.....	8,494	3,376	3,669

Source: Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.